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SERIES OF LECTURES

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BY

OFFICIALS OF

THE BOARD OF GRAIN COMMISSIONERS FOR CANADA

1949

CONCERNING

the

ORGANIZATION, ADMINISTRATION, FUNCTIONS AND

SERVICES OF THE BOARD

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J. W. Channon

BOARD OF GRAIN COMMISSIONERS FOR CANADA

STAFF TRAINING

Lecture No. 1

The Board of Grain Commissioners for Canada is a semi-judicial and administrative body of three, a Chief Commissioner and two Commissioners appointed by the Dominion Government under the Minister of Trade and Commerce to administer The Canada Grain Act.

The provisions of this Act are designed to give the Federal Government complete power to control the handling of grain. Restrictions are imposed by the Act on the transportation of grain, except from and to licensed elevators, and on the use of the established grade names used for designating grain. The Act does not, however, interfere or attempt to control in any way the prices at which grain is bought or sold, nor does it provide for any control or supervision of the different grain exchanges. The Board, therefore, has no power or duties in the matter of prices or control or supervision of grain exchanges.

Its duties are those of supervising the physical handling, weighing and grading of grain, etc., the registration of documents issued against the grain, and such other duties as are set out under special Acts of Parliament, such as fixing maximum lake rates, and collecting the assessment under The Prairie Farm Assistance Act, etc.

With this rather formal definition of the Board of Grain Commissioners for Canada and its various functions, it might, before examining in detail its various responsibilities, be interesting to review the background that led to its formation.

No more romantic story of the development of Western Canada can be told than that relating to the production, marketing and transportation of our great cereal crops. It is a story of rapid development and world-wide significance, beginning in 1876 when Ontario, because of an almost complete crop failure, had to look "West" for a supply of good seed. On October 13th of that year Mr. R.C. Steele of Steele Briggs, Toronto, arrived in Winnipeg, travelling to St. Paul and across the plains in a lumber wagon. He wanted five thousand bushels of wheat but was able to secure only eight hundred and fifty-seven bushels. This was assembled, weighed and sacked, and on October 21st the consignment left Winnipeg by steamer. It was conveyed up the Red River to Fisher's Landing, Minnesota, and from there shipped by rail to Duluth.

It is interesting to note that the price paid the producer was 87¢ per bushel, while the cost of transporting it to Toronto totalled 27¢ per bushel. Twelve farmers living in the Winnipeg area contributed various amounts, from seventeen to two hundred and four bushels, to make up this shipment of a very fine quality of Red Fife wheat weighing sixty-four pounds per bushel.

Just one year later, October 17th, 1877, the first shipment of wheat from Western Canada to Great Britain was shipped by Red River steamer to St. Paul and thence by rail to seaport. Little did those who initiated this export movement realize how significant the export of Canadian wheat was to become. They could hardly have conceived that it was to become the cornerstone of our Canadian economy, and that Canada, in the short space of seventy years, was destined to become one of the world's largest exporters of foodstuffs.

A grain of wheat is a very tiny thing in itself but the prosperity of Western Canada is bound up in its existence. It is not too much to say that without the grain of wheat in its cultivated form we would not have our thriving cities in Western Canada; we would not have such extensive railway systems; we would not have nearly three million people on these western plains; we would not have so huge an industrial development in Eastern Canada; and without wheat we would not have attained anything like the great export trade now enjoyed by this young country.

In the early years the facilities for handling wheat were primitive, slow and inefficient. Grain was sacked and loaded through flat warehouses. While for a time these seemed to meet the needs of the industry, they quickly proved inadequate. The railway companies, in order to expedite the handling of the steadily growing volume of grain, encouraged the building of elevators along the railways, offering free sites and special privileges to private interests who would erect elevators with a minimum capacity of 25,000 bushels. As a further inducement to these elevator interests, the railway companies undertook not to allow loading of cars through flat warehouses or direct from farmers' wagons. By these means all the business was forced into the hands of the elevator companies and created what eventually amounted to a monopoly in the handling of grain. The farmer was left almost helpless. He had lost all power of bargaining in the sale of his grain. He could not get a car in which to ship his own grain, but was forced to deliver to an elevator and to sell or store it on terms dictated by the elevator operators. He was denied any means by which he could obtain government inspection of his grain, and was forced to take whatever grade, dockage, or price that was offered to him. He was

firmly convinced that the monopolistic privileges then enjoyed by the elevator companies encouraged speculation and gambling, and that the arbitrary manipulation of prices was in most cases a detriment to the farmers. The growers felt themselves in the grip of a conspiracy to rob them of their just share of the wealth created by their labor. This sense of irritation and discontent continued to grow until finally it reached the point where many farmers were prepared to take action, no matter how drastic or revolutionary, necessary to secure changes and reform in marketing machinery and practices.

Fortunately, however, saner and wiser action was initiated. In 1898 the Federal member for Assiniboia introduced legislation at Ottawa "to regulate the shipping of grain by railway companies in Manitoba and the Northwest Territories." The bill was designed to give farmers the right to ship through flat warehouses and to obtain cars through direct loading from their wagons. The legislation was never passed, but the public discussion then aroused was largely responsible for inducing the railway companies to give an undertaking to supply cars to farmers who required them. This concession, however, was limited in its usefulness because the great majority of shipping points lacked loading platform facilities.

Out of the difficulties and the turmoil created by the unfair practices of those engaged in marketing western grain crops has grown perhaps the most efficient and economical grain marketing system in the world. The Canada Grain Act became the Magna Carta of the producers and the handlers of grain in Canada. It laid down the general broad principles that were to govern the handling of grain, but the details generally were left to the Board to be dealt with by regulations. These include a set of maximum charges which may be made by licensees of elevators for the different services rendered at such elevators, the amount of shrinkage which may be deducted on delivery of grain at elevators, fees payable for the different services rendered by the Board, amount of security to be filed by the different classes of licensees, forms to be used and records to be kept by licensees, and the system to be followed in the registration and cancellation of warehouse receipts.

In order to protect the rights of the different parties the Board has jurisdiction to enquire into any matter relating to the grading and weighing of grain, deductions made from grain for dockage, shortages on delivery of grain into or out of elevators, unfair or discriminatory operation of any elevator, the refusal or neglect of any person to comply with any provision of The Canada Grain Act, or any regulations made or licences issued pursuant thereto, and any other matter arising out of the terms of the duties of the Board. After such enquiry, the Board is empowered to give such direction as the right and justice of the case requires.

In each of the three Prairie Provinces the Board maintains an Assistant Commissioner who investigates without delay complaints of the producers and thereafter makes a full report on the matter to the Board. These Assistant Commissioners also periodically inspect the country elevators in their respective provinces. All elevators with their equipment and stocks of grain are subject at any time to inspection by officials of the Board.

Broadly speaking, then, the Board of Grain Commissioners is charged with the responsibility of supervising the inspection and grading of grain, the registration of all documents of ownership, the compiling of all statistical information, the checking of milling and baking qualities of the various grades of grain, the supervision of all elevators, and the actual operating of interior and terminal elevators owned by the Dominion Government.

In addition to the duties above suggested, the Board is charged with the administration of the Inland Water Freight Rates Act of 1923. This imposes on the Board the responsibility of determining from time to time the rates that shall govern the transportation of grain over the Great Lakes and inland waters of Canada.

Additional responsibilities are imposed on the Board under the Prairie Farm Assistance Act. Under this Act the Board is charged with the collection of a levy of one per cent of the net value of all grain marketed in the Prairie Provinces. It is interesting to note that the amount collected for the year ending July 31st, 1948, was \$5,116,329.42, and the total collected since the scheme was initiated on August 1st, 1939, was \$33,026,377.73.

To carry out all these responsibilities the Board employs from 700 to 900 employees, with branch offices in Vancouver, Prince Rupert, Edmonton, Calgary, Lethbridge, Moose Jaw, Saskatoon, Winnipeg, Fort William, Chatham, Toronto and Montreal.

For functional reasons the Board provides for the following departments: Executive, License & Bonding, Inspection, Registration, Weighing, Grain Research Laboratory, Accounts, Government Elevator System, Statistics, Grain Appeal Tribunals (3), and Assistant Commissioners (4). In addition, two subsidiary organizations are set up, the Eastern and Western Committees on Grain Standards.

The total cost of all these services for the fiscal year 1947-48 was \$2,061,040.17 and the total revenues collected in the same period amounted to \$1,404,134.86. The estimates of the Board of Grain Commissioners for Canada provide for all expenditures in connection with the administration by the Board of The Canada Grain Act of 1930.

Without here discussing in detail the work of these various departments, as each is to be the subject of discussion at a later meeting, I will for the purpose of completing the picture merely enumerate them with brief comment.

1. The official inspection and grading according to grades authorized by the statute of all grain delivered to us shipped from terminal elevators and the maintenance of grain appeal tribunals to settle disputes regarding the grading of grain.
2. The official weighing of all grain delivered to or shipped from terminal elevators in addition to which all scales in such elevators are regularly inspected by officials of the Board.
3. The registration as to weight and grade of all grain delivered to public and semi-public terminal elevators and eastern elevators and the cancellation of such registration when the grain is shipped from these elevators.
4. The licensing of all parties operating in all the classes of elevators as defined in The Canada Grain Act, obtaining from such licensees security by bond or otherwise to protect growers and shippers of grain in case of default in their obligations by such licensees. It might here be noted in passing that all grain stored in terminal elevators must be cleaned and must be insured.
5. Maintenance of a statistical service to collect and compile all necessary statistics in connection with the handling of grain in Canada.
6. The operation of a grain research laboratory for scientific work and research in connection with the grading of grain, such as determining protein and moisture content, etc., and making milling and baking tests for the information of the Western Grain Standards Committee.
7. The maintenance of Eastern and Western Grain Standards Committees which by the statute select and determine the standards for the various grades of grain, both domestic and foreign. It should be noted here that the standards determined for export are somewhat higher than the standards set for domestic deliveries.
8. Regulating the distribution of cars in the Western Division
 - (a) to prevent discrimination between points;
 - (b) to expedite the movement of grain out of condition.
9. Settlement of claims against defaulting licensees from security filed with the Board.
10. Investigating complaints by the general public into the operation of licensees, and adjusting of disputes arising out of matters required by The Canada Grain Act.
11. The management and operation of six public terminal elevators situated at Moose Jaw, Saskatoon, Calgary, Edmonton, Lethbridge and Prince Rupert. These elevators provide public storage for grain.
12. As previously suggested, the Board is also charged with the collection of a one per cent levy under the provisions of The Prairie Farm Assistance Act, 1939.

The Board determines from time to time the fees that are charged to the owners of the grain for inspection, weighing and registration. A fee is also charged for each licence issued.

Now, with that broad, general outline of work and functions of the Board of Grain Commissioners before us, let me conclude with a brief reference to the significance of the work you are doing severally and jointly in relation to the agricultural and business economy of this country.

The farmer plans and labors throughout the year to produce his cereal crops, which constitute his chief source of income. As soon as his grain is offered for sale, our organization determines the grade, dockage and weight of such grain, and in so doing, in some degree measures the reward for the labor enjoyed by the farmers. Our staff makes arbitrary decisions consistent with the terms and conditions of The Canada Grain Act and the regulations set up under it. By these decisions, the grain is graded and weighed, etc., and so classified to fit into the prevailing price structure. It is obvious that these responsibilities must be carried out honestly, accurately and scientifically so as to truly reflect the values represented in the various lots of grain offered on the market. So well and efficiently is that work done, that it is only comparatively rarely that the producer offers any objection or criticism.

Under its proper documentation, the grain then moves forward to the consumer market, the greater proportion going to countries outside of Canada. Again the grain is

inspected and weighed, etc., and the proper warehouse receipts and certificates issued. So accurately, honestly and correctly are these functions performed that the purchaser of the wheat, anywhere in the world, accepts the certificate final as a basis on which to determine his purchasing contracts. In other words, he does not see the grain he buys, but because of the confidence he has in our Canadian grain inspection system and the integrity of our organization, he actually buys the certificate final issued against the grain, knowing that he is certain to obtain the quality of grain specified in the certificate final. No other country in the world is able to sell all its grain on the world's markets on this basis, although the United States does sell some grain in a similar manner

While in Great Britain last summer we were thrilled with the confidence expressed in our certificate final and our Canadian system of grading grain.

Our organization - you men and women - are engaged in the great work of so classifying and weighing our Canadian grain, of issuing and registering all necessary documents, of supplying statistical and scientific factual information in such a manner as to win and maintain a world-wide confidence in the efficacy of our grading and marketing systems. You in a large way appraise the value of the producers' grain, and you make such an appraisal so fairly and efficiently as to win and maintain the confidence of the purchaser, wherever located. That you do your job well is evidenced in the paucity of complaints from producers and in the repeated confidence expressed by the purchaser. Think not of your job as a routine function; rather take satisfaction out of the fact that you share in a great national service that is fundamental to agriculture and to our Canadian economy.

Lecture by D.G. McKenzie, Chief Commissioner,
delivered on February 15, 1949,
Winnipeg, Manitoba.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

STAFF TRAINING

LECTURE No.2

The title of this lecture should have been reversed, as I propose, first, to deal with the position of the Board in the Department of Trade and Commerce, and second, with the functions of the Secretary and the clerical staff of the Executive Offices.

The Chief Commissioner in the first lecture gave the history of the Act and a broad general outline of the Board's functions thereunder, but I propose to deal with some of these functions in more detail, insofar as they affect the work of the Executive Offices.

To recite the position of the Board in the Department of Trade and Commerce, it is desirable first to give a brief sketch of the organization of the Government of Canada. The Parliament of Canada is a body elected by the vote of the electors, and from this Parliament is formed a Government chosen from the party with the largest number of representatives elected to Parliament. This body is known as the Cabinet, and the members as Ministers of the Crown. Each Minister is responsible for the administration of a different Department. From this Cabinet there is still another smaller body appointed; viz., the Treasury Board, consisting of the Minister of Finance and five other Ministers. These Ministers are: Internal Revenue, Justice, External Affairs, Agriculture and Trade and Commerce. While the Cabinet deals with all matters of policy, Treasury Board acts as a Committee in all matters pertaining to finance, revenues and expenditures referred to it by the Government or which Treasury Board itself thinks it necessary to call to the attention of the Government.

Most statutes or Acts of Parliament specify therein the Minister under whose jurisdiction the Act will be administered. For The Canada Grain Act the Minister is defined as The Minister of Trade and Commerce. Other statutes are, of course, under the jurisdiction of the Minister of Trade and Commerce so that the Department, besides its departmental administrative section, has the following divisions:

Foreign Trade Services

Standards Division (Weights & Measures, Electricity & Gas, Precious Metals)

Dominion Bureau of Statistics

Wheat and Grain Division

Travel Bureau

Board of Grain Commissioners

Exhibition Commission

Steamship Subventions and Mail Subsidies

Canadian Shipping Board

While the Canadian Wheat Board is also under the Minister of Trade and Commerce, it is not a division of the Department comparable to the Board of Grain Commissioners. The Wheat Board is a corporate body with power to act as such. The Board of Grain Commissioners is not a corporate body. All its contracts require to be completed on behalf of the Dominion of Canada by the Minister of Trade and Commerce.

In reporting to the Minister of the Department of Trade and Commerce the Board communicates through the Deputy Minister or the Secretary of the Department, although it can communicate direct with the Minister.

With the exception of the members of the Board and the Assistant Commissioners, appointed by the Government according to the Act, all appointments to the staffs of the Board are required to be made under the provisions of the Civil Service Act. There is, however, one exception, the position of Chairman of the Grain Appeal Tribunals. These officials are appointed by the Board. All recommendations regarding staff have to be submitted to the Department for approval and furtherance to the Civil Service Commission, and the Civil Service Commission communicates with the Board through the Department. The Board does not have any direct official contact with the Civil Service Commission. In the same way, all requisitions for printing and stationery are submitted to the Department for furtherance to the King's Printer. The Board's estimated financial requirements each year are submitted to Parliament as part of the estimates for the Department of Trade and Commerce. While the Board may authorize expenditure up to \$100.00, any items above that amount must first be approved by the Department.

At times there have been discussions on the question as to whether the Board of Grain Commissioners should not be a division of the Department of Agriculture in that it is concerned solely with agricultural products. However, the functions of the Board are closely connected with trade, both domestic and export, so it still remains a division of the Department of Trade and Commerce. Actually, the Board operates as a distinct department within the Department of Trade and Commerce in that it is organized on much the same lines the members of the Board being the Administrative Head, an Administrative Officer

who acts as Secretary, a Treasury Officer, and separate operating branches.

The Executive Offices of the Board, with a staff of nine in addition to the Secretary, is a central clearing house for all phases of the Board's work. It has, of course, direct contact with the Department of Trade and Commerce and all the different branches of the Board.

The office is organized into two divisions, personnel and administration.

The Personnel Section, as its name indicates, deals only with matters pertaining to the staff. A complete record is maintained of each member of the various staffs of the Board in addition to a record for each position. All routine personnel matters from the different branches, after checking, are processed for immediate submission to the Civil Service Commission through the Department of Trade and Commerce. These include: requests for additional staff, appointments to fill vacancies, permanent appointments, open competitions, promotion competitions, transfers, leave, superannuation, retirement fund, unemployment insurance.

Any particular case which requires a ruling or instruction of the Board is laid over for consideration by the Board at its next meeting. In the same way, any personnel matters received from the Civil Service Commission through the Department are, after checking by the Personnel Division, forwarded to the different branches.

It is the work of the Personnel Division to keep all Branch Heads fully informed of all Government instructions and regulations re staff. These include leave, salary, appointments, unemployment insurance, retirement and superannuation funds. It is essential of course, that the staff of the Personnel Division be fully informed of all the latest regulations and procedure.

Staff pay certificates are made up twice monthly from information submitted by Branch Heads. These are passed to the Board's Treasury Officer for submission to Central Pay Office. Central Pay Office issues salary cheques to the Board's Treasury Officer who, on the appropriate day, arranges for their distribution to the different branches.

A cardinal principle required to be observed is that Branch Heads, officers in charge at different points and the individual employees be kept fully informed on all matters affecting the staff. This information is required to be made available at the earliest possible moment. In this connection, attention is drawn to the Staff Order Books and monthly staff summaries, which should be available to all employees at all times.

Owing to lack of staff it is only during the past year that the Personnel Division has been properly organized. It is still in its infancy, but by the end of the year it is anticipated that it will be in a much better position to render greater service to the different branches. It must be remembered that personnel problems of the individual must, in the first place, always be referred by the individual to his immediate superior or the officer in charge of personnel matters in his own branch. The Personnel Division of the Executive Office is always available to advise Branch Heads or branch personnel officers.

The other section of the Executive Offices constitutes the secretarial staff of the Board. The Administrative Officer acts as Secretary to the Board at all its meetings. In addition to its regular Board meetings each week, the Board also holds public meetings each year at Winnipeg, Vancouver and Toronto to hear representations regarding tariffs of charges to be made by elevator operators. Each year the Board also constitutes an Eastern and a Western Committee on Grain Standards. The Secretary of the Board acts as Secretary of both these Committees, and makes all arrangements for their meetings. The formal minutes of all meetings are prepared by the Secretary, and all interested parties are promptly informed of decisions made by the Board.

When formal investigations of complaints are made by the Board the Secretary acts as Clerk of the Court. After the evidence has been considered the Board makes its finding and issues an order disposing of the complaint. These findings and orders are issued by the Secretary to the interested parties.

Other public meetings are held from time to time on matters pertaining to The Canada Grain Act, and arrangements for such meetings form part of the work of the Executive Offices.

The Board, besides administering the different branches set up to provide the services required by the provisions of The Canada Grain Act, has many other functions handled directly by the Executive Offices. To facilitate the administration of the Act, it is provided therein that the Board may make regulations or orders governing the procedure or practice to be followed in matters arising out of the Act, but the Board can only make such regulations or orders on matters specifically mentioned in the Act, and no

regulation or order can be made that would in any way be inconsistent with the provisions of the Act. These regulations are framed by the Board after discussion with the Heads of the Branches concerned, and also in many cases after discussions with representatives of the grain handlers. Immediately these regulations are made they are distributed to all interested parties.

From time to time, owing to changing conditions, it may be found desirable to amend the Grain Act. Such proposed changes are also discussed with all officials and grain handlers concerned, and then the Board recommends to the Minister of Trade and Commerce that the Act be amended at the next session of Parliament and the necessary draft bill is prepared in the Executive Office.

The necessary funds for the operation of the Board are voted each year by Parliament. This necessitates the preparation in the Executive Office, about five months before the beginning of each fiscal year, of detailed estimates of the amounts that will be required for the operation of the Board for the next fiscal year. These estimates have to be prepared in great detail; for instance, the name of each individual member of the present staff has to be listed.

Detailed statements have also to be prepared covering all phases of the Board's operations. These are for the use of the Minister when the Board's estimates are brought before the House of Commons. At that time members of the House can ask any questions they wish, and it is essential that the Minister have as much information available as possible to answer such inquiries.

After monies are voted by Parliament, control must be exercised by the Board to ensure that only the monies voted are spent.

Expenditure: In recent years a very adequate system of expenditure control has been instituted by the Government. This requires that no expenditure shall be incurred for account of the Government unless prior authority is received and certification given by the Treasury Officer that money voted by Parliament is available to cover such expenditure.

Branch Heads and officers in charge are only authorized to make purchases up to \$5.00; all other expenditures must have prior authority of the Board, so that purchase orders for all goods and services are submitted by all Branches to the Secretary. If these are in order, they are then countersigned by a member of the Board and certified by the Representative of the Treasury and returned to the Branch.

The Grain Act provides that railway cars for shipping grain from country points shall be supplied equally and without discrimination to all elevators at the same point, but the Act also gives the Board authority to provide cars out of turn under certain emergency conditions, such as for the shipment of out-of-condition grain, to empty elevators in danger of collapse, and for the immediate shipment of grain required for seed. Applications for such cars are filed with the Executive Offices, and if such applications are in order and the circumstances justify cars out of turn, the railway companies are ordered to supply the necessary cars.

The Act prohibits the unloading of wheat from railway cars into country elevators except by order of the Board under certain specified conditions. This provision is to prevent the undue mixing of grain in country elevators. If licensees do desire to unload wheat from railway cars for the purposes specified in the Act, then application must be made to the Board. If the application is approved, the railway company is authorized to spot the car at the elevator specified.

Special binning in terminal elevators is permitted under the Act subject to approval by the Board of the contracts between the two parties. After approval the Inspection, Weighing and Registration Branches have to be advised of the details of such contracts.

All licensees, before being granted a licence, are required to file with the Board a bond guaranteeing faithful performance of all the obligations imposed on such licensee by the Grain Act. If a licensee defaults in his obligations to settle for grain purchased, the Board immediately suspends the licence and advertises for claims against the said licensee. All claims are closely scrutinized and checked against the records of the licensee, and if in order, are referred to the bonding company for settlement under the terms of the bond.

Country elevator licensees file with the Statistician, at the end of each crop year, a statement for each elevator showing the stocks at the beginning of the year, the receipts during the year, the shipments and the stocks on hand at the end of the year. Theoretically, the initial stocks plus receipts should balance the shipments plus stocks at the end of the year. It is, however, easy to understand that in handling grain in bulk, such a precise balance cannot be obtained. Elevator operators are permitted to take a

shrinkage allowance from all grain delivered to the elevator to offset the invisible loss in handling in the elevator and in shipment to the terminal. From the statements submitted the Board can ascertain whether the results are reasonably close. In all cases where the statements indicate that excessive overages have been accumulated the Board takes action against the agents involved.

The stocks of grain in all terminal and eastern elevators are audited each year by officers of the Inspection and Weighing Branches. Statements of the results of these audits, compared with the outstanding warehouse receipts at the time of the audit, are prepared by the Statistician and submitted to the Board. These statements are scrutinized in the Executive Offices and then released to the terminal elevator operators, who then adjust the warehouse receipts to agree with the stocks on hand. If from these statements it appears that overages have been accumulated by mixing grain in contravention of the provisions of the Act, then the licensee is required to pay to the Board the value of such overages. In some cases action may be instituted against the licensee for breaches of the provisions of the Act, or the Board can act as a Court and levy a fine.

The Board, through the General Manager, operates the Canadian Government Elevator at Edmonton, Calgary, Lethbridge, Moose Jaw, Saskatoon and Prince Rupert. In the actual operation of the elevators, the General Manager is treated as another licensee of the Board but all routine work involving personnel, purchase of equipment and supplies, and repairs passes through the Executive Offices, as well as all detail work in connection with the leasing of any of these elevators. Estimates of financial requirements for the elevators are submitted annually by the Board to the Department in addition to the estimates submitted for the other phases of the Board's administration, and expenditures are under the same strict control.

I have now given you a brief outline of the principal functions of the Executive Offices of the Board. In addition there is a great deal of routine work in connection with printing and stationery supplies, office equipment, office accommodation, etc., for all Branches, but there is one other item to which it is well to draw attention. Section 23 of the Act requires the Board to submit to the Minister of Trade and Commerce in January of each year a report on all matters as appear to the Board to be of public interest in connection with the performance of its duties. This is the Annual Report of the Board, prepared in the Secretary's Office, and to which are appended the annual reports of the different Branches of the Board. When this report has been printed, copies are supplied to each of the Board's different offices, and all employees should be encouraged to read it.

Lecture by Secretary of the Board on Administration of the Board
and its position within the Department of Trade and Commerce,
February 17, 1949,
Winnipeg, Manitoba.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

LECTURE NO. 3

INSPECTION OF GRAIN - WESTERN DIVISION

The grading of grain in Canada is authorized by an Act of Parliament entitled "The Canada Grain Act." This Act contains classifications and definitions for all statutory grades. It also makes provision for the establishing of commercial grades when necessary. The Inspection Branch of the Board of Grain Commissioners grades all wheat, oats, barley, rye, peas, corn, rapeseed, sunflower seed, flax, soybeans, buckwheat and beans in conformity with these provisions and regulations of the Board of Grain Commissioners.

The Grain Act and the Board's regulations provide for three different classes of grades: Statutory, Commercial and Off Grades.

Statutory grades are the grades which are defined by Parliament and embodied in the Grain Act. Commercial grades are those set by the Committees on Grain Standards to take care of grain which, because of climatic or other conditions, cannot be included in the statutory grades. These may be changed each year. Off grades include the following: tough grades for grain that contains moisture over the percentage recommended for safe storage on the various grains; damp grades for grain containing over the percentage of moisture allowed in tough grades, and which is unfit for warehousing; rejected grades for grain that is musty, sour, sprouted, heated, fireburnt, or mixed with cinders or gravel, or has a commercially objectionable foreign odour, or that contains excess of other cereal grains, or other foreign matter that cannot be readily removed, or from any other cause is unfit to be classed under any of the other regular grades; smutty grades for grain that has an unmistakable odour of smut, or which contains smut spores, balls or portions of balls of smut; sample grades for grain containing over 10% of heated or over 8% fireburnt, or an excessive percentage of other foreign matter, and in grading rapeseed the grade of Sample applies to seed that is musty, sour, etc. There is no grade of Rejected for flax or rapeseed.

Grading of grain is for the purpose of determining quality, and to fix a basis of valuation. Apart from the desirability of establishing standards of quality for purchase and sale purposes, grading is necessary because of our system of handling grain in bulk. To obtain the full benefit of bulk handling, it is necessary to bin different parcels of like quality or grade together in order to economize storage space in our elevator system.

The system of grading is based largely upon the scientific knowledge of qualities according to physical appearance, together with the weight per bushel, mixtures of other varieties, or other cereal grains and seeds; freedom or otherwise from disease and its effects; the percentage and severity of damage or immaturity; freedom from foreign odours; and the moisture content.

Canada is divided for grading purposes into two divisions; viz., Eastern and Western Divisions. The Eastern Division includes all that part of Canada east of the City of Port Arthur, with Inspection points at Chatham, Toronto, Montreal, Sorel, Quebec, St. John and Halifax. The Western Division includes all that part of Canada west of and including the City of Port Arthur.

It is impossible to go into every detail of the Inspection Branch work in the time at my disposal, but I will outline briefly most of the important work we are doing.

Wheat is marketed by producers mainly in two ways, by the wagon load and by the earload. Since approximately 50 per cent of the wheat of Western Canada is marketed by the wagon load, it might be well to give consideration first to the provisions of the Act whereby a farmer can be assured of getting the correct grade for his grain when marketed by the wagon load. The common practice in connection with the marketing of grain by the wagon load is that the farmer brings a sample of his grain to town and submits the same to one or more elevator agents. If the farmer and the agent agree on the grade and dockage, there is no difficulty in connection with the transaction. In the majority of cases they do agree. Competition among the various elevator companies is keen enough that the company is willing to purchase grain on the basis of the grade to which it is entitled. If, however, the farmer and the elevator agent are not able to agree on the question of grade and dockage, then the grain may be delivered to the elevator, the elevator agent issuing an interim cash purchase grain ticket. A sample is drawn from the load and sent to the nearest Inspection office jointly by the farmer and the agent. Upon receipt of the grade from the Inspection office, the elevator company is required to make settlement on the basis of the grade placed upon the grain by the Government Inspector. It will be seen from this provision that no producer is required to accept arbitrarily any grade placed upon his grain by the agent of the elevator company, even to the extent of a wagon load. The only question which arises, therefore, is the competency and honesty of the officials of the Inspection Department.

These men are entrusted with the inspection of grain only after many years of experience, and after having passed strict examinations in the classification of grain.

The inspector has no interest in the matter except to do the work according to his best judgment. When inspecting a sample of grain taken either from a wagon load or from a carload lot, the inspector does not know to whom the grain belongs, whether it is a farmer's grain or an elevator company's grain.

A two-pound sample is required before an official grade can be given. When grain is thought to contain an excess amount of moisture; that is, more than 14.5% in wheat, the sample must be enclosed in an air-tight container.

When carlots are loaded out of the country elevators or by farmers' platform loading and billed to a terminal elevator, the Canada Grain Act requires that all grain shipments be inspected passing through an Inspection point. The first essential in this procedure is to secure official samples. This is accomplished at Inspection points such as Winnipeg, Calgary, Edmonton, Vancouver, New Westminster, Port Arthur and Fort William. On cars billed to Churchill, Moose Jaw, Saskatoon, Medicine Hat and Lethbridge, the samples are taken at the mills or terminals at the time of unloading.

Upon the arrival of a train in the railway yards, the shipping bills are secured and checked over by a clerk of the Inspection Branch, who makes a list of all cars containing grain, showing car number, initials, kind of grain, name of shipper, shipping station, destination, and the name of the person or company to whom the car is billed. These details are necessary for the issuing of certificates. Also from this list are prepared the sheets needed in the Inspection Office. These sheets are two in number, one large and one small. The large sheet shows all details mentioned, and is given to the clerical staff, who issue the certificates. The small one shows only the car number, the columns for grade, weight per bushel, dockage, load line and moisture test, and is given to the inspector who grades the grain. In this way all knowledge of the ownership of the grain is kept from the inspector who grades it. His information is limited to the number of the car.

The seals of all the grain cars are broken, and replaced after sampling is completed. An official grain sampler enters the car over the grain door by means of a ladder, taking with him a grain probe, a small cotton bag to contain the sample secured, and a cardboard ticket on which is recorded the car number, date, depth of grain, any other notations, and his initials. By this means the official sampler of each and every car is known, and the responsibility for the sample placed.

Each good sample car is probed in at least seven different places. The contents of each probe as taken is placed on a canvas sheet, and the different lots are examined by the sampler foreman individually and collectively. After this examination is made, the full contents of all probes are placed in the cotton bag, into which the cardboard ticket is inserted. The cotton bag is then closed by means of a drawstring, and the sample is delivered to the Yard Office of the Inspection Branch. Here it is checked back to the train list and the inspection sheets, after which the sample is placed, together with the inspection sheets, in a closed box and delivered by truck to the head Inspection office at that point.

Upon the arrival of the samples at the Inspection office, the smaller inspection sheet is handed to the inspector, who selects his samples by car numbers corresponding to those on his sheet.

A portion of the sample is cleaned and submitted to the moisture room for a moisture test. Every sample that is inspected is also tested for moisture.

In grading a sample of grain the weight per bushel is first determined. The dirt and foreign matter are then removed from the sample by means of screens or hand separation. The percentage thus removed is determined by weight, and is called "dockage", and is separately stated in every Inspection certificate issued in respect to such grain. The cleaned grain is then examined as to its kind and variety, and is placed in the class or grade to which it belongs.

In determining the grade, the Standard samples are used for comparison; consideration is given to the plumpness, quality and evenness of the kernels, degree of maturity or immaturity, damage by frost, heat, disease, or any other cause, the mixture of other varieties of the same grain, or other grains, and the condition or moisture content of the grain. The moisture content of the grain is ascertained by machines which register the percentage.

When the grade of a sample has thus been determined, an Inspection certificate is issued in the name of the owner. This certificate shows the car number and initials, shipping station, place and date of issue, the kind of grain, grade, dockage, if any, and moisture test. These certificates are delivered or mailed to the owner on date of issue.

After a sample has been graded, it is placed in a tin box and filed in a storage room. These, and all other official samples of grain, are at the disposal of the owner or his agent for checking purposes within the Inspection offices for a period of 30 days.

The owner or his agent, when not satisfied with the inspector's grade, has the right to call for a reinspection. In such cases the sample is re-examined by a senior inspector at the point where inspection is made, and when necessary, the unload sample is

obtained. If the owner is still dissatisfied he has the privilege of placing the unload sample before the Appeal Tribunal, whose decision is final in all such matters.

This procedure may also be applied to shipments out of terminals.

A shipper has four chances to obtain the grade he thinks the grain is worth - primary inspection, reinspection, reinspection at unload, and the Appeal Tribunal.

All carloads of grain which are unloaded at an Inspection point are resampled by a probe, or a running sample off the conveyor belt, or by an automatic sampler, for the purpose of checking the grade, dockage and condition, given at the primary Inspection point.

Almost all terminal elevators in the Western Division are equipped with automatic samplers.

Uniformity of grading at all Inspection points is important. This is accomplished by having inspectors in charge at all points who have had similar training and many years of actual experience in grading of all kinds of grain, who thoroughly understand the provisions of the Grain Act pertaining to inspection of grain, and who have good judgment in comparing the quality of one sample with another.

All points are furnished with a portion of the Standard Samples and Standard Export Samples established each crop year by the Committee on Grain Standards. These Standards are used as guide samples in that the samples being graded are compared as to quality or grade with these Standards. These, together with quite an extensive interchange of samples of cars at all times, and frequent visits by the Chief or Assistant Chief Inspector to the various Inspection points, are the methods employed to maintain uniformity.

All dockage for dirt, and/or other foreign matter assessed at primary inspection, is removed by the terminal elevators before the grain is shipped out by them.

All grain shipped out of terminal elevators, whether by car or vessel, is sampled and inspected. If by car, a member of the Inspection staff examines the box car before loading as to its cleanliness and suitability to load grain. If by vessel, the hold or holds into which the grain is to be loaded are also examined. A copy of the shipping order is handed to the inspector in charge at the terminal elevator before the loading commences. This order shows the car number or vessel, as the case may be, and the quantity and grade of grain which is to be loaded. With this information the Inspection officers see that the grain is loaded into the proper car or hold of the vessel, thereby assuring the identity of the grain and grade.

Carload shipments are sampled in the car. Boat shipments are sampled on the deck of the boat as the grain is running into the hold. These samples are examined as to their cleanliness and quality, which is judged by comparison with the corresponding Standard Export Sample established by the Standards Committee. These samples are then placed in locked canvas bags and forwarded by truck to the main Inspection office at the point, where all samples are again checked over by senior inspectors and inspection certificates issued in the name of the owner, and show, if a car, the car number and initials, place and date of issue, the kind and grade of the grain; if a vessel, the name of the vessel, the number of the hold or holds, the place and date of issue, the kind and grade of grain, also the quantity of grain covered by each certificate.

An Inspection certificate issued on grain out of terminal elevators in the Western Division is known as "Certificate Final", and this is the final Inspection certificate issued on this grain in Canada. These certificates accompany the grain to its destination, whether for home or overseas trade. Canadian grain is bought and sold almost wholly on these certificates, and they are accepted in foreign markets at their face value. Canada is the only country in the world which sells and guarantees the grain on a certificate final. Others sell on fair average quality.

Export shipments of grain loaded at Canadian Pacific ports and at Churchill, Man., are loaded directly into ocean vessels for delivery overseas.

A very small percentage of export shipments of grain at the Head of the Lakes; viz., Fort William and Port Arthur, is loaded into ocean tramp vessels for direct delivery overseas. The greater bulk of this grain is loaded into lake vessels for delivery to Canadian Atlantic and United States Atlantic ports via the Lower Lake and Bay ports.

That part of Canadian grain routed through the United States is transferred in and from the lake vessels to railway cars at Buffalo for delivery to ocean vessels at United States Atlantic ports. The shipments by the all-Canadian route are transferred from the lake vessels at the lower Canadian lake and bay ports into canal boats or railway cars for delivery to Canadian Atlantic ports, where the grain is loaded into ocean vessels, and each lot is sampled and checked as to grade and quality by officers of the Inspection branch. These samples are preserved for a period of at least twelve months, and are used for checking and comparison in case of overseas complaints.

Inspection and sampling services are not free, and fees are collected in accordance with the Board's regulations.

Daily reports must be compiled for all cars unloaded into terminal elevators. After certification of scale weight by the Weighing Branch, elevator outturns are checked for correct grades, assessed dockage computed and net outturn of grain determined. As each carlot is a unit, it can be realized the tremendous amount of work involved when up to 2,000 cars per day are being unloaded, and the numerous calculations applying to each carlot.

Likewise, reports are prepared for outward shipments for eights, correct grades and destinations, whether by vessel or car. These returns are prepared for elevators separately, and copies are forwarded to the Board's Registrar, Statistician, elevator companies and railroads, and the Accounts Branch. These records furnish the basis for registration and cancellation of warehouse receipts, statistical data on grain statements and tables, and billing and collection of fees. Statements must also be prepared covering all other activities for which fees are collectable.

GRAIN APPEAL TRIBUNALS

Section 47 of the Canada Grain Act reads as follows:

"The Board shall constitute grain appeal tribunals at such places or for such districts as in the opinion of the Board such tribunals are required in the public interest.

(2) Each grain appeal tribunal in the Western Division shall consist of nine members, of whom one, who shall be chairman of the tribunal, shall be appointed by the Board from among persons who are qualified to be inspectors of grain under this Act, and of whom the remaining eight shall be competent persons who are not members of the inspection staff under the Board.

(3) Each grain appeal tribunal in the Eastern Division shall consist of such number as the Board deems necessary of fit and skilful persons who are recommended to the Board by the board of trade of the city at which the headquarters of the tribunal are situate, and may also include a principal inspecting officer under the Board; such officer, if he is a member of the tribunal, shall be the chairman thereof, and if he is not, the Board shall appoint one of the members of the tribunal to be chairman.

(4) The chairman of each grain appeal tribunal in the Western Division shall devote the whole of his time to the performance of his duties as such, and shall not inspect grain otherwise than as chairman of the tribunal or hold any other office or employment or be interested either directly or indirectly, as shareholder in any company or partner in any firm or otherwise, in any commercial dealings in relation to grain; he shall make an oath of office in writing in the same terms mutatis mutandis as that required to be made by a commissioner under this Act and shall cause such oath to be filed with the Board.

(5) Every other member of a grain appeal tribunal shall take an oath of office in such terms as the Board may prescribe.

(6) The remuneration of the chairman of each grain appeal tribunal in the Western Division and the fees payable to any other member of any grain appeal tribunal who is not in the public service of Canada, shall be fixed by the Board subject to the approval of the Minister.

(7) A quorum of an appeal tribunal shall consist of the chairman and two other members of the tribunal to be selected by him, one of such members to be a representative of the growers of grain.

(8) If the chairman of any tribunal is unable to act as such for the purpose of disposing of any appeal, he may, subject to the approval of the Board, delegate his powers as chairman to any other member of such tribunal or such other person as the Board may deem competent to perform the duties of the chairman."

Appeal Tribunals are constituted at the following Inspection points: Toronto and Montreal in the Eastern Division; Winnipeg, Calgary and Edmonton in the Western Division. Cars of grain that are graded at the primary inspection points of Edmonton and Calgary and unloaded at the Port of Vancouver are forwarded to these points if an appeal is requested by the shipper. All cars unloaded at Churchill, Fort William or Port Arthur are submitted to the Winnipeg Appeal Tribunal regardless of the primary inspection point. Before these unload samples are submitted for appeal, they are thoroughly examined by the inspector in charge at each point with the representative of the shipper concerned, and if an appeal is decided on, the representative of the shipper fills out an application form for the appeal, recording the car number, date of inspection, elevator unloaded at, port of unload and inspector's grade and dockage. A fee of \$3.00 is charged for the appeal.

This application, with the \$3.00 fee and the unload sample, is handed to the chairman of the tribunal. He in turn examines the sample, cleans it for dockage, and the

Secretary records the particulars of the appeal in the record book.

The chairman notifies two members of the tribunal to appear at his office to examine the sample submitted, one member being a representative of the producers of grain. The sample is submitted to the tribunal without any documents whatever. They have no idea of the origin of the sample, grade or dockage, etc. The chairman and the secretary are the only persons who have this information.

After the members have examined the sample and a difference of opinion on the grade is found, the chairman has the casting vote. If the inspection grade is sustained, the \$3.00 deposit is forfeited, but if the grade is changed the fee is returned to the applicant.

The documents used after an appeal is settled are printed forms describing the grade and dockage as settled by the tribunal, car number and the grain firm representing the applicant. One copy is forwarded to the applicant, and one is filed in the Chief Inspector's office. In case of a change in grade, a copy is also forwarded to the Chief Statistician so that he can make the change on his unload sheets.

All sheets recording the inspection of the car appealed are marked in the Inspection office, regardless of whether or not the grade of the car has been changed.

The samples submitted to the tribunal are returned at the end of each day to the Inspection office, where they are filed for at least sixty days.

The number of samples of grain submitted to the appeal tribunals during the crop year 1947-48 was:

	Appeals Held	Grades Raised	Grades Lowered	Left as Graded
Winnipeg	356	31	Nil	325
Calgary	272	50	Nil	222
Edmonton	177	15	Nil	162
Toronto	Nil	Nil	Nil	Nil
Montreal	Nil	Nil	Nil	Nil

This is a total of 805 cars placed before the appeal tribunals out of a total of 16,936 cars inspected for that crop year.

In cases where the identity of the grain has not been preserved, appeals from the decision of the inspecting officer to the appeal tribunals may be made within 30 days from the date of unloading, if at unloading a sample was taken by means of an automatic sampler and such sample has been preserved. In all other cases where the identity of the grain has not been preserved, and a sample was not taken at the time of unloading, no appeal shall be entertained except with the authority of the Board of Grain Commissioners.

If a change in grade as the result of an appeal is made, the inspector in charge of the terminal point is notified, who advises the operator of the change in grade or dockage. The inspecting officer also advises the Registrar of all such changes, and a corrected warehouse receipt is issued after the original one has been submitted for cancellation. Corrected inspection certificates are issued, bearing the date the change in grade was made.

Any dried wheat that is placed before the appeal tribunal is first submitted to the Laboratory for milling and baking test to determine if the quality has not been injured in the process of drying.

Lecture delivered at Winnipeg, Man.
February 22, 1949, by
A.F. Dollery, Chief Grain Inspector,
Board of Grain Commissioners.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

LECTURE NO. 4

INSPECTION OF GRAIN - EASTERN DIVISION

As defined in the Canada Grain Act, Section 2 (j), "Eastern Division" means all that portion of Canada lying east of the meridian passing through the eastern boundary of the City of Port Arthur.

Schedule Two of the Act establishes grades for inspection of grain grown in the Eastern Division, and defines the grade names as Canada Eastern to distinguish them from grain grown in the Western Division.

The inspection of grain grown in the Eastern Division is not compulsory under the Canada Grain Act. Section 57, which states, "No railway company shall carry grain from or through Winnipeg, Edmonton, Calgary, Fort William, Port Arthur or Vancouver unless such grain has first been inspected and graded under this Act or unless the Board or one of its members or officers having authority in that behalf gives express permission for such carriage," applies only to Western Canada. Thus, inspectors in the Eastern Division inspect grain grown in the Eastern Division only at the request of the owner, agent or buyer.

Appreciation of the value of the Canadian inspection certificate by eastern grainmen and overseas buyers of eastern grains has resulted in greatly increased requests for inspection in the last few years.

Inspection Points in Eastern Division

There are three Inspection points in the Eastern Division: Montreal, P.Q., and Toronto and Chatham, Ont. The Inspector in charge at Montreal is responsible to the Chief Inspector for supervision of the Eastern Division. Inspection routine at each point is as follows:

Chatham: is situated in south-west Ontario in the centre of the area that produces 90% of the marketed grain grown in the Province. Winter wheat, corn, beans, soybeans, flax and buckwheat are the main cash crops raised which can be graded under the Canada Grain Act.

Numerous railway lines through this area run parallel, focusing at Toronto, but since many of the mills, starch plants and distilleries which buy grain from this area are located west of Toronto, inspection at a central point, as is the case in Winnipeg, is impossible.

Country elevators in the Chatham district are privately owned, and all grain is shipped on consignment of a specified grade. Elevator operators, therefore, request sampling and inspection before releasing cars for shipment. The Chatham Inspection district is, roughly, all elevators within a radius of 100 miles from Chatham.

When a country elevator operator is going to ship a carlot of grain, he telephones the Chatham Inspection office, advising when the car will be loaded and ready for sampling, which is usually the following day.

The district is divided roughly into four routes on which elevators are located. Each morning a sampler is despatched from the Chatham office over each route, if there are requests for sampling at any elevator on the route. Each sampler drives his own car and is paid for mileage covered monthly. His equipment consists of a large canvas bag which is locked at the top with a padlock, containing sample bags, tickets, moisture tins and a bundle of car seals marked, "Board of Grain Commissioners" and a serial number, a long probe the same as used in the Western Division, a short probe for sampling sacked grain, and a lantern for sampling after dark.

On arrival at an elevator where a car is ready for sampling, the sampler obtains the car number, number of bushels in the car, and the destination from the operator and makes out a ticket with this information, plus the firm name and station, and seal numbers of seals to be applied. If the grain is in bulk, he proceeds to sample in the same manner as used in the Western Division, placing his canvas sheet in the doorway and taking seven probes of grain. The grain probed is examined on the canvas, notation made on the ticket of the load lines, number of probes, and any remarks necessary as to variation of the load, condition, odour or insects present. The sample on the canvas is then thoroughly mixed and a moisture tin filled with part of the sample. The balance of the sample and the tin are then placed in a sample bag and tied tightly at the top. The car is sealed, the sample placed in the large canvas bag and the bag locked.

If the grain in the car is sacked, as is the case with beans, the number of bags in the car is recorded on the ticket instead of bushels. Other information on the ticket is the same. The sampler then proceeds to sample 10% of the bags in the car, recording the number of bags sampled. There are usually 600 sacks in a car, one layer of bags standing upright on the bottom, and three layers on their sides on top of the bottom layer. With the aid of a helper from the elevator staff, the sampler goes to one end of the car and lifts out four sacks of each layer until he is down to the bottom sacks.

Untying the top of a sack he runs a three-foot probe, which is of the same construction as the long one, through the centre of the beans to the bottom of the sack, empties the probe into a pail and reties the sack. Approximately five sacks from each layer in this area are sampled. When he finishes sampling this area, the sacks are replaced in the hole made. The same sampling method is followed in the centre of the car and at the other end; thus, sixty sacks have been sampled out of 600. When sampling is completed, the sample in the pail is mixed thoroughly, part placed in a moisture tin, and the balance with the tin placed in a sample bag. The car is sealed and the sample placed in the locked bag. The sampler then drives to the next elevator on his route where inspection has been requested. When he has sampled all cars requested on his route, he returns to the office, but all cars of which he has been notified must be sampled that day regardless of the time required. It is not unusual for a sampler to leave at 8:00 in the morning and not return until 10:00 P.M.

The responsibility of obtaining a representative sample of each carlot rests wholly with a sampler, and a man in this position must be well trained, of high integrity, and in good physical condition. An inspector from the Chatham office accompanies each sampler once a week, if possible, to supervise his sampling procedure.

The morning after the samples are brought to the office, they are graded and a moisture test is made of the sample in the tin container. In grading the samples, an inspector first establishes weight per bushel, removes the dockage from the sample, using the sieves specified for the kind of grain, then grades the cleaned sample according to the Canada Grain Act.

Inspection sheets are made out, listing complete information on each car, and a copy sent to Toronto and Montreal Inspection offices. A certificate stating grade and dockage is made out in duplicate and mailed to the shipper of the grain. In many cases, the shipper telephones the Inspection Office by long distance by noon the day following sampling to get the grade on his cars, and after obtaining it, bills his cars to their destination. This requires that grading be completed as soon as possible.

Carlot inspection certificates are used as certificates final on eastern grain exported out of Canada.

Two Eastern elevators are located in the Chatham district at Sarnia and Goderich. These elevators handle western grain for transfer to Eastern elevators on the St. Lawrence. Sampling of western grain at these two elevators is made only if the condition of cargoes is questioned, and then only on the authority of the Chief Inspector. In such cases, the grain in question is sampled by inspectors from the Chatham office as it is unloaded off the boat, and samples and reports are sent to the Chief Inspector at Winnipeg.

TORONTO: The Toronto inspection district is limited to the City of Toronto and suburbs. Cars of eastern grain being unloaded at local elevators and mills, which have not been inspected at Chatham and on which inspection is requested, are sampled on track at the elevator. Cars of eastern grain passing through Toronto railway yards for destination east of Toronto, which have not been inspected in Chatham and on which inspection is requested, are sampled in the yards. In both cases a sampler is sent from the office to where such cars are located, opens the cars, samples the grain using the long probe and canvas sheet, makes out a ticket showing car number, load lines and other remarks necessary, places the sample and ticket in a sample bag, seals the car, and returns to the office. The sample is graded by the inspector and a certificate made out. Inspection sheets showing records of cars inspected are sent to Montreal daily.

The procedure followed in requests for reinspection of western grain in carload lots by Toronto buyers of such grain is to sample the car and forward the sample to the Chief Inspector, with remarks as to condition, for his consideration.

MONTREAL: Western grain shipped for export is transferred through Eastern elevators to ocean-going vessels at Montreal, Sorel and Quebec during the summer months, and at St. John, New Brunswick, and Halifax, Nova Scotia, during the winter season.

Inspectors and samplers from the Montreal Inspection office are placed in elevators at these points during the shipping periods. Samples of all inward shipments of grain are taken, checked against the certificate final issued at the Lakehead, and a report made out. Samples of all outward shipments are taken, checked against the grade of the certificate final, and a report giving complete particulars of name of the boat into which the grain is loaded, holds, and condition made out. A portion of the sample is sent to the Montreal office where it is placed in a container and kept for at least 12 months. Thus, on a complaint on a cargo from overseas, the cargo can be traced through every handling back to the original shipment out of the Lakehead. Copies of all records are sent to the Winnipeg Inspection office.

The procedure followed in requests for inspection of cars of eastern grain not previously inspected is to send a sampler from the office to sample such cars, grade the samples at the office, and make out certificates and sheets to cover.

On request, cargoes and carlots of American grain being shipped through Montreal

district for export are sampled, checked, and reports of condition issued.

Prior to 1939 corn from Argentine and Africa was imported through Montreal into Canada. Such cargoes were sampled and letters of condition issued to Canadian importers.

Eastern Division General Regulations

As outlined, the duties of the Inspection officers in the Eastern Division are varied, but it will be noted that an inspector never grades western grain. Section 38 of the Canada Grain Act specifies that "except by order of the Board no inspecting officer of the Eastern Division shall reinspect any western or other grain unless it is reported to have gone out of condition subsequent to its earlier inspection or to be likely to go out of condition."

Therefore, while all cargoes of western grain are resampled and checked as to condition, if the sample appears to differ from the grade placed on it by inspectors of the Western Division, no change can be made, but the sample is sent to the Chief Inspector at Winnipeg for his attention. This also applies to requests for reinspection of carlots of western grain shipped to Eastern Canada. Resampling is done by Eastern Division inspectors, but changes of grade must be made by the Chief Inspector.

The collecting and preparing of samples for submission to the Eastern Grain Standards Committee covers a much longer period than is the case in the West. This is due to the time of harvesting various crops. Winter wheat is harvested and marketed in July and samples for standards must be collected at that time. Oats and barley are harvested in August, flax and buckwheat in September, pea beans in October and November, and corn in November, during which periods samples are collected by each office in the Eastern Division. These representative samples of the crop are sent to Montreal where tentative standards are prepared. The tentative standards are sent to Toronto for the meeting of the Eastern Grain Standards Committee about the middle of November. The standard samples selected and settled by the Committee are used then as guides to grading by the inspectors and are available to any of the Trade interested.

PREPARATION OF STANDARD SAMPLES

Section 25 of the Canada Grain Act authorizes the preparation of Standard samples.

The Western Grain Standards Committee is constituted as follows: the Grain Commissioners, the Chief Grain Inspector, the Chairmen of the Grain Appeal Tribunals, the Chief Chemist on the staff of the Board, and the Dominion Cerealists. These are ex-officio members. The Board of Grain Commissioners nominate a representative of the millers of wheat flour, four representatives of grain growers in Alberta, five in Saskatchewan, three in Manitoba, one in British Columbia, and a representative of the Plant Products Division of the Department of Agriculture. Fifteen members constitute a quorum.

As soon as possible after the 1st of August samples are collected of the year's crop of all grains. The method whereby this is accomplished is by marking "Bag for Standard" on the inspectors' grading sheets against cars we think are suitable for standards, taking into consideration weight per bushel, variety of grain, etc. This mark, "Bag for Standard", is typed on the Fort William sheets for the information of the inspectors at the terminals who, on arrival of the car for unloading, procure a two-bushel bag of the grain for furtherance to Winnipeg to be cleaned, tested for protein, etc. These we use in preparation of standards of that particular grade.

We also obtain two-bushel bags of the various grains from the western inspection points; also from the Peace River area. We arrange to have forwarded bushel lots of the inspection averages from each inspection point. These averages are used with the bags procured from the individual cars to make up the tentative minimum standards and export standards.

Minimum standards are considered as the bottom of the grade for which they belong. These are prepared after selection has been made from the bags of grain received, taking into consideration weight per bushel, the variety of the kind of grain, and the definition for the grade as outlined in the Canada Grain Act.

The export standards are made up by mixing three parts of grain equal to the general average of grain assigned to such grade, and one part of the standard sample; or, in other words, 75% of the average of the grade and 25% of the minimum of the grade. Therefore, the export standard is better in appearance than the minimum standard.

When the tentative export standards have been prepared they are submitted to the Grain Research Laboratory for milling and baking test; the Amber Durum for macaroni and colour test; flax for oil test, and barley grades for malting test. If these tests prove satisfactory to the Chief Chemist, the standards are considered ready to submit to the Standards Committee for their approval, and if approved, are adopted as the official standards for the crop year.

The standard samples for the commercial grades; that is, the grades not named and defined in the Canada Grain Act, are prepared in the same way as the statutory grades, but these may change slightly in appearance from year to year owing to any particular damage such as frost, immature, sprouted, etc. These damages are reflected in the samples submitted to the Standards Committee for their approval or rejection as they see fit.

After all the standards for the crop year have been approved, a portion of each grade is forwarded to all inspection offices for their guidance in grading. This applies to the standards, the export standards and standards of the commercial grades. Portions are also forwarded to the Chairmen of the Grain Appeal Tribunals, the Dominion Cerealists, and other millers and chemists throughout the Dominion.

The export standards and standards are also forwarded to the Canadian Trade Commissioners in the United States, United Kingdom and Europe, millers and corn exchanges in the United Kingdom, the United States and Europe, and for the crop year 1948 we forwarded standards to:

- 15 Trade Commissioners abroad
- 8 Corn and Grain Exchange and Associations abroad
- 6 Corn and Grain Exchanges in Canada and the United States of America
- 10 Grain Research Laboratories abroad
- 2 Brewers in the United States
- 2 Experimental Colleges in Canada
- 5 Grain Elevator Companies in Canada
- 6 Other Individuals and Farmers' Representatives

To give you some idea of the work in connection with the preparation of standards, for the crop year 1948 we received 468 two-bushel bags of various grains. These were cleaned, the wheat tested for protein, and 242 bags made up for submission to the Committee for its approval.

The Eastern Standards are prepared and submitted to the Eastern Committee in exactly the same way except as to the quantity of bags made up.

Lecture delivered at
Winnipeg, Manitoba,
February 24, 1949,
by Mr. A.F. Dollery,
Chief Grain Inspector.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

LECTURE NO. 5

THE FUNCTION OF THE BOARD OF GRAIN COMMISSIONERS LABORATORY

Section 22 of the Canada Grain Act has only seventeen words, "The Board shall maintain an efficient and adequately equipped laboratory for research work in relation to grain." This is the only section of the Act that mentions the Laboratory, and it clearly says that the duty of the Laboratory is "research work relating to grain." Most of us will agree that research work is of little value unless it is used, so I think that we might stretch this definition by saying that our function is not only to do research, but also to apply its results to the solution of practical problems. There are a few special duties of the Laboratory that arise from the need of helping other departments of the Board, but this work can also be classed either as research or as application of research findings.

The Laboratory has eleven main rooms. Three are on the ground floor, and eight are on the eighth floor of the Grain Exchange Building here in Winnipeg. There are also seven small rooms and vaults that are used as a photographic darkroom, shops for metal and woodworking, rooms for storage, etc. The Laboratory has two offices, one for the Chief Chemist and a secretary on the eighth floor, and one for Mr. Aitken and his staff on the second floor. The second floor office also holds the library. (For plan, see Annual Report of the Grain Research Laboratory for 1947, Page 11).

Our Laboratory is the largest of its kind in Canada, and one of the largest grain research laboratories in the world. It is well equipped. To give some idea of how well, I might say that if everything but the walls burned down, the Board would have very little left from a quarter of a million dollars after it had replaced everything.

At full strength we have a staff of 36 persons. There are ten positions for professional chemists, but only eight of these are filled at present. Three of our chemists hold doctors' degrees in chemistry, and others have other degrees. We expect to have two more doctors of chemistry (Ph.D's) in the spring, and one in each of the three next years, so that about three years from now we shall have a staff of eight doctors. They should make a strong research team.

The Laboratory has 22 technicians and assistant technicians, and there is an office staff of four. The technicians are a particularly able group with all sorts of different skills and abilities. It would be very hard to find as good a team in any other laboratory of the same size in Canada or anywhere else, so far as I know.

In the rest of the lecture I will tell you something of what we do in the Laboratory, and of where our work fits into the Board's organization. I shall try to give you some idea of what research is by describing only three of the many fields in which we work: 1. moisture determination; 2. studies of varieties of grain, and 3. studies of different grades.

Moisture Studies

Most of you know that the highest moisture for grains grading straight is set so that the grain will store safely. It must have been hundreds and hundreds of years ago that men first noticed that if the moisture content of grain was above average, the grain would heat and spoil when it was stored for some time. When we started grading grain in this country, 30 or 40 years ago, inspectors used to feel the grain and chew it, and if they thought that it was too moist, they graded it tough or damp. Later on, the scientists came along with a better test for moisture content. Then they set about to find the exact moisture at which the grain would start to heat.

This involved laboratory research. A number of samples of the same wheat were stored in the laboratory at different moisture contents until some of them, (the moist ones), went out of condition. The moisture content at which this happened was noted. The effects of temperature during storage were also studied. Of course, this was repeated with a good many samples so as to be sure and to get an "average" figure. It was also necessary to do this work with oats, barley, flax and other grains in order to set the proper moisture levels for safe storage of these grains. In other words, a long and elaborate investigation was necessary.

But the chemists were not satisfied with the answer given by this sort of investigation. They wanted to know why the grain heated and spoiled. The history of this research, which went on at many places throughout the world, is extremely interesting, but I have not the time to describe it here. It is known, however, that grain goes out of condition mainly because of certain microorganisms on it. These are molds or fungi. Now, you all know what molds are; you have seen the blue growth that develops on bread if it is kept in a moist place.

The seeds of these microorganisms, which are very small, are found by thousands in every sample of grain. Research has shown that the main reason why they sprout and grow is the high moisture of the air between the grain kernels. When the relative humidity of the air gets up to 75 per cent, most of the fungi grow and start to heat the grain. Of course, the relative humidity of the air between the kernels of grain in any bin depends on the moisture content of the grain; a balance is established between the moisture in grain and the moisture in the air.

Now you will want to know whether this sort of knowledge, of why grain heats, is of any use to us. It is of considerable use. Firstly, it simplifies the job of finding out the condition under which grain will heat. Secondly, now that we know the different types of microorganisms found on grain, and that they occur in larger numbers on low-grade or dirty grain than on high-grade and clean grain, we can tell what will happen when grain is put in storage. We can also tell the effects of various storage conditions on the rate of heating of grain. This, of course, is not of such importance in Canada where we are helped by cold weather during the winter. We also have excellent storage facilities for our grain. However, in many parts of the world, storage facilities and conditions are nothing like as good as those we have in Canada, and since we must now do our utmost to conserve the food of the world, it is very important that we should know how to store grain safely.

Arising out of our moisture studies, we have one small control job to do. You all know that moisture tests are made in all of the Board's inspection offices. It is one of our tasks to see that these determinations are made with the best type of equipment and according to official specifications. In short, we help the Chief Inspector by supervising moisture testing at all the Board's inspection offices.

Some of you will also know that during recent years the Inspection Branch has been using an electrical moisture meter for preliminary measurement of the moisture content of grain. The electrical meters are much faster than the old Brown-Duvel method which takes an hour to measure the water that is distilled out from the grain. With the electrical meters a test can be made in a few seconds.

During the last year the Laboratory made a study of ten of the best-known makes of electrical meters on the market. This study involved a test of the accuracy of each meter, and also the effects of different temperatures on the testing. It was shown that the Tag-Heppenstall moisture meter, the one which we have used for some time in the Inspection Branch, is still the best meter on the market. It has two rolls, and as the wheat is crushed between them the moisture content is shown by an electric meter. We are hoping that it will be possible to replace the old Brown-Duvel distillation method of testing moisture by this newer machine. But there are still many problems to be solved. It will probably be some months before Mr. Dollery and I get together and decide whether we can recommend to the Board that the electric meter replace the Brown-Duvel method as a standard procedure.

Studies of Bread Wheat Varieties

The study of different varieties by the Laboratory is one of the most important fields of our research and one of the studies which is very useful indeed. For example, the Canada Grain Act states that wheat, in order to enter 1 Hard, 1 Northern and 2 Northern, must be Marquis or any other variety which is "equal to Marquis" in quality. This raises two questions. Who is going to say whether a variety is "equal to Marquis"? And how are we going to find out whether a variety is "equal to Marquis"? The answer to the first question is that the Laboratory, with help from other expert cereal chemists in Canada, does the testing. And the answer to the second question I shall try to explain.

Every new variety produced by Canadian plant breeders, or introduced from another country, is put through a series of tests known as varietal trials. These are laid down by the Federal Department of Agriculture, and involve growing the varieties at 23 experimental stations across Western Canada. Each variety may be kept in this test for three years. Some drop out after one or two years because they are found to be unsatisfactory, but the others stay in the test for the full three years. In each year the trial includes our standard varieties and 21 of the new varieties which the plant breeders wish to test. Those varieties that are good enough to be kept for three years are grown in still larger plots in the fourth year. Samples of them are then sent overseas to about eight chemists in the United Kingdom and to a few selected chemists in the United States for testing. Large Canadian milling companies also co-operate in these tests. So you can see that in the fourth year we get very complete and extensive tests of these newcomers.

During the first three years of the trials most of the work is done by the Laboratory. Help is also given us by the laboratory of the Cereal Division at the Central Experimental Farm, Ottawa. First of all, it is necessary to mill samples to make flour from them, and the Laboratory has mills for that purpose. Then the flour is made

into dough and break is baked. The loaves are quite small, about the size of an overgrown bun. However, they give us a lot of information on the way in which a flour will bake into bread. The loaves are measured to determine their size or volume, and they are examined and scored for outside and inside appearance and texture. Some photographs of the baking section are shown in the Annual Report of the Laboratory for 1948.

In addition to the baking tests, various other tests are made to measure properties or qualities of the dough. The Laboratory has four machines that are used for this work. Physical properties of dough are important because most bread is now made in large factories with automatic machinery. At one stage the dough is put through a machine that flattens it into a thin sheet. If the dough is too elastic, like a rubber ball, it will spring back to its original shape instead of staying in a sheet. Or again, you can understand that if the dough is too soft or sticky, it will gum up the machinery. Of course, this description is oversimplified and exaggerated, but it gives you the idea of why physical properties of a dough are important.

Chemical tests are also made to find out differences in the qualities of flour. But these are rather technical, and it does not seem worth while to describe them in this lecture.

Research in the section working on bread wheat deals largely with the differences between varieties. For instance, we find that some varieties give the largest loaf when the dough is mixed for a short time, while other varieties given the largest loaf when the dough is mixed for a long time. We are trying to find out why this is. And we also have some similar problems which can only be solved by intricate chemical experiments. The field is a difficult one, but most research is now difficult because the simple problems have already been solved.

Testing Durum Wheats

Our Laboratory has equipment for testing durum wheats. You will remember that in the top grades for these wheats the specifications say that the variety must be Mindum or equal to Mindum. Durum wheat is used for making macaroni. The wheat is first milled into a coarse but very pure flour called semolina. The semolina is mixed into a stiff dough or paste which is then pressed through forming dies and comes out as macaroni. The fresh macaroni must then be dried under very carefully controlled conditions. The temperature is kept constant and the relative humidity, (the amount of moisture in the air), is slowly reduced. In this way macaroni dries straight and does not crack.

In talking about durum wheat we may mention a problem created by our plant breeders. It has been found by experience that if a plant breeder develops a new variety without getting any information about its quality, he is likely to become attached to it and be very upset when the chemist tells him that it is no good and his years of work have been wasted. It is wise to start testing varieties as early in the life of the new variety as possible. This requires tests which can be made with very small amounts of material. Our Laboratory has pioneered in developing a small-scale test for durum wheat in which only one strand of macaroni is made. With this test we are able to give Canadian plant breeders an excellent service in testing their varieties.

Testing Malting Barley

Testing of malting barley raises problems similar to those met in testing wheats. Here the variety must be O.A.C. 21 or equal to O.A.C. 21. Just as we must make bread in order to test spring wheats, so we must make malt in order to test the malting quality of barley. The malting process is a sprouting or growing process. It involves soaking or steeping the barley for two or three days until the moisture content is 46%. The wet barley is then sprouted in a cabinet which has closely controlled temperature and humidity. Then the sprouted barley is dried slowly and carefully in a kiln, which takes about two days. The malts are then analyzed in the Laboratory.

The malting process is a long one; it takes 10 or 11 days. The Laboratory has equipment for malting 24 samples each week. This equipment is shown in a photograph published on Page 14 of the Laboratory's Annual Report for 1947. A steeping tank and the germination cabinet with sample containers are shown.

In order to help plant breeders, the Laboratory has also developed a small-scale test for barley. By means of chemical determinations on barley, the quality can be predicted. This system was developed only after several years of research. By this method which uses only a small amount of barley, plant breeders' samples can be tested early, we do not have to wait for malting tests.

Other Miscellaneous Work

The lecture so far has been about three of our main laboratory sections; those working on bread wheats, durum wheats and malting barley. In addition we have, for

example, an analytical section that deals with oil seeds and where we analyze feed grains and do miscellaneous tests. Photographs of some of the analytical laboratories appear in the Laboratory's Annual Report for 1947.

A lot of the equipment that has been mentioned is complicated, and is driven by electric motors. The Laboratory has over 130 electrical motors of different sizes running various pieces of equipment. Now, you can understand that the job of keeping this equipment in shape and running is a big one. The Laboratory has a small shop in which various repair jobs are done. We also find, from time to time, that we need new equipment which has never been built before. We have to invent such equipment. It would be hard to get large firms to undertake the construction of apparatus that they have not built before. For this reason we can build all sorts of necessary equipment in our workshop. Indeed, much of the best equipment now in use in the Board's Laboratory was designed and built by our staff in the workshop.

We use photography quite a bit. It is very useful in making records of the appearance of loaves of bread and other things which cannot easily be described in words. Photography is also used to make graphs, maps and other illustrations which are published in our reports and scientific papers. In addition, we make slides, both in colour and in black and white, for various lectures.

Research on Different Grades

Now let us turn to research on different grades. This can be divided into three kinds of studies. First of all, the Laboratory has made extensive studies of grain characteristics used in grading. I have mentioned moisture content and variety already. A short list of some of the things which we have examined for their effects on the milling and baking quality of wheat follows: immaturity, frost, heating, bleaching, sprouting, germ damage, split wheat, off-colours of various sorts, melilot and other taints, insecticides and fumigants. In the last few months we made studies on the effect of 2,4-D, the new weed killer which has been used throughout Canada. Mention should be made, too, of a big investigation of grain drying made partly in this Laboratory, but mainly at the University of Alberta. Many of the other researches were also made in collaboration with cereal laboratories at the University of Alberta, University of Saskatchewan, University of Manitoba, and the Central Experimental Farm at Ottawa. Now, you will agree that studies of this type are of basic importance in the development of a good grading system.

Testing the New Crop

A second group of studies involves work on each new crop. Late in August we start to collect thousands of samples of various grains. These are made up to represent principal grades of hard red spring wheat, durum wheat, malting barley, etc. Then these samples are all tested in the Laboratory by a complete series of tests already described. The results help the Chief Inspector to prepare his export standard samples. Information on the quality of the new crop is also presented to the Western Committee on Grain Standards, which meets each fall to establish the standard and export standard samples. In addition, information is also published in the form of four bulletins. One deals with the milling and baking quality of wheat and the macaroni-making quality of durum, one with a survey of protein content of wheat, one with flax, and the last one with malting barley. These bulletins are sent all over Canada and throughout other parts of the world to let our customers know the quality of the grain they may expect to get throughout that crop year.

Long-term Studies of Grades

The third group of studies is a series of investigations that is made every month of every year. For instance, the Laboratory gets, through the Inspection Branch, a sample from every twentieth carlot of wheat. We also get average samples for each grade of each grain that the Inspection Branch inspects each month throughout the crop year. These average samples, as you know, are samples made from handfuls of grain taken from each car during the period concerned. Then, too, we get samples of unloads at terminal elevators and samples that are taken from every cargo that leaves each port for overseas.

The small envelope samples are studied by making protein tests and recording kernel weights. At the end of a crop year they are put together to make up samples for milling, baking, and various other physical and chemical tests. The results of these complex studies are published in the Annual Report of the Laboratory, which appears about the end of each year.

We have often been asked why we do these continuing investigations. And this is an important question. The answer is that it is the duty of the Laboratory to do research, and these studies are research on the quality of the different grades of different grains.

In Canada we have a grading system that is defined by the Grain Act, by the

regulations of the Board, and by the instructions issued by the Chief Inspector under the authority given to him by the Board. We know that this system is operated with great and painstaking care. We can take for granted the excellence of the working of the system, for we know how carefully the Inspection Branch does all its work.

But how good is the system? Does it always see that the best wheat is placed in the top grades? Are all carlots of No. 1 Northern always better in milling and baking quality than all cars of No. 2 Northern? The only way that we can get answers to these questions is to make milling and baking and other tests of samples of these grades. This is what we do in these continuing studies. Our work deals with differences in milling and baking qualities between the various grades, with differences in quality between carlots of one grade, with differences between cargoes of the same grade, and such other differences as occur; for example, between Vancouver and Atlantic shipments of the same grade. The changes in quality of the grades that occur from year to year are also studied.

There can be no perfect system of grading. Every system that can be thought of is likely to be better for some farmers than for others. It will be better for some customers than for others. For example, a United Kingdom miller will receive now and then a cargo of No. 1 Northern wheat which is somewhat below average in baking quality. On the other hand, he will sometimes receive a cargo of the same grade that is definitely better than average in baking quality. How often does this happen? Does he get the average of the grade in general, and does he only occasionally receive these high or low cargoes? In other words, does the grading system give him a fair break? The same question applies to the producer or grower. Is the system fairer to some farmers than to others? Or do all farmers living everywhere throughout Western Canada get a fair break?

Research is necessary to give answers to these questions. And it must be done year after year because the quality of the grade is certainly affected by different weather conditions in different years. Various amendments that are made to the Canada Grain Act also change the quality of the different grades. So, a long-time study is necessary to get reliable answers to the types of questions just given. The Laboratory has been making some of its studies for as long as 20 years. Other groups of studies of the grades have been going on for only about ten years.

We all know that the Canada Grain Act is amended and improved from time to time. Conditions change, and the Act must keep up with these changes. Our research on grades provides useful data for deciding how to continue the improvement of the Canada Grain Act. We do not want to be guessing about these important matters. We want to know what the facts are. We want to know how certain facts are related to other facts, and we want to understand the meaning of these relations. Only thus can we be sure that a wise policy is being developed.

Just a Brief Glimpse

What I have told you gives a brief glimpse of some of the work that is being done by the Laboratory. I think we are willing to stand on our record. Now that we are building a somewhat larger and better trained research team, we hope that we shall be able to produce still better results in the future. In short, you may be certain that we will always bear in mind that Section 22 of the Canada Grain Act tells us to be "efficient."

So, the function of the Laboratory is to do research and to see that the results of this research are applied. Our aim is to help the Board and all its staff in the administration of the Canada Grain Act and to help the Board and its staff to maintain and improve the reputation of Canadian grain in the markets of the world.

Lecture delivered at Winnipeg, Man.,
on March 3, 1949, by Dr. J.A. Anderson,
Chief Chemist, Board of Grain Commissioners.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

LECTURE NO. 6

Functions, Organization, and Services Rendered by the Statistics Branch of the Board

The Board is to be congratulated on the institution of the present series of lectures designed to more fully acquaint the staff not only with the broader aspects of the functions of the Board in its relation to the grain trade and national economy, but also with the more detailed workings of each Department and their association with one another. This well-organized course of study should further help each of us to see in proper perspective the functions of our own Branch as it fits into the larger administrative "scheme of things", and it is to be hoped that it may encourage even better team play among the various branches of the Board.

At the risk of a possible duplication of material already presented to you in previous lectures, I would first like to refer briefly to some sections of the Canada Grain Act which make effective the administration of the Board in regulating the handling of Canadian western grain through its licensing authority.

The Canada Grain Act sets up such a series of operative conditions that it is practically impossible for a western elevator manager to conduct a grain handling business without first obtaining a licence from the Board. Sections 89 and 90 of the Act prohibit an unlicensed western elevator manager or anyone acting in his behalf from using standard grade designations either in recording or acknowledgment of western grain received into or discharged from his elevator.

The Canada Grain Act also carries very specific prohibitions on the movement of western grain by rail or vessel from an unlicensed elevator, restrictions on the rail delivery of wheat to a country elevator or from a mill elevator, and provides for the inspection of all cars of grain by officers of the Board shipped from or through Winnipeg, Edmonton or Calgary, Fort William, Port Arthur or Vancouver, (refer Sections 54, 57 and 58 of the Canada Grain Act). The imposition of heavy legal penalties may follow indictment for any breach of such regulations.

Of more immediate concern probably to this Branch are Sections 15 (p) and Section 87 of the Act, setting out in general terms the authority of the Board in establishing the form and manner in which elevator company records are to be kept and returns made from time to time. Regulation 45 of the Board, issued under authority of the aforementioned sections of the Canada Grain Act, outlines in greater detail the various returns required from licensees.

While no specific directive would appear to be contained in the Act for the appointment of a Statistician to the Board, such appointment is implied in Section 21, which requires that "The Board shall at the office of the Statistician to the Board keep available for inspection by any person without fee all relevant publications showing the market prices of grain from day to day during at least the next preceding five years in all the recognized markets in Canada, including Vancouver, Winnipeg, Fort William, Toronto and Montreal and in the markets at Liverpool and London in England and New York, Chicago, Minneapolis and Duluth in the United States of America."

This retaining of grain market prices quotations on file for inspection should not be deemed the least essential responsibility of the Statistics Branch. "But," you may ask, "what further functions have fallen within the scope of the duties of this Branch as the work of the Board has developed over the years?"

The responsibilities of the Statistics Branch at the present time range from those essentially administrative to duties more strictly statistical in character. Our effort in verifying the maintenance of full insurance coverage on all public, semi-public, and eastern elevator grain stocks in accordance with Section 102 of the Canada Grain Act as amended March 28, 1947, illustrates one of the activities of this Branch of administrative category.

Under Board regulations licensed public, semi-public and eastern elevator management is required to file with the Statistics Office a certified copy of grain fire insurance policies in force. All such policies are carefully scrutinized to verify their conformity with the ruling of the Board respecting federal registry of the underwriting companies, the inclusion of both fire and inherent explosion provisions in the case of terminal and eastern houses, the proper market value and loss payable clauses so that the interests of the holders of warehouse receipts or other documents of title are as fully protected as possible.

Policies may contain either (or both) "Limited Liability" or "Co-insurance" provisions. In the case of the former, insurance underwriters accept no liability for loss or damage through fire (or inherent explosion) in excess of a stipulated amount.

"Co-insurance clauses, usually associated with periodic stock value reporting provisions, the event of fire loss, distribute between the insured and the insurer the amount of any such loss in the same ratio that the under-values reported bear to the true market cost of the stored grain. It is, therefore, most important for this office to watch weekly elevator stock values most closely to ensure that they do not rise above "Limited Liability" protection, and that they coincide with weekly insurance agency value advice.

In conjunction with the Registration Branch we also act something in the nature of auditors in making a continuous weekly check on outstanding warehouse or transfer records through a system of periodic elevator reports.

The more truly statistical phase of our work, though not subsidiary to our other activities, may be classified on the basis of end use under two heads: (1) Data used as guide for administrative or policy considerations of the Board, and (2) Grain handling data for release to the grain trade.

In the former group may be placed such returns as the regular weigh-over audit statements, (A, B, C), and annual country elevator summaries of overages and shortages. Our weigh-over statement "A" indicates actual physical overage or shortage of grain stock at the weigh-over cut-off date, and provides a basis for the cancellation of warehouse receipts covering shortages and the issuance of warehouse receipts for overages by the elevator company on instructions from the Board. Audit statement "B" prepared by this office reflects any excess or deficiency in elevator operations after an allowance is taken into account of $\frac{1}{4}$ of 1% on public, semi-public and interior private elevator receipts, and 1/16 or 1% in the case of eastern elevator receipts. Sections 125 and 130 (3) provide for the binning of all western grain received into public and eastern elevator houses by like grade, and prohibits the mixing of the first four scheduled grades of western grain, 1 Hard 1, 2 and 3 Northern, and also 1 C.W. and 2 C.W. Garnet Wheat received into any licensed semi-public or private terminal elevator. If evidence of the mixing of western grain contrary to the Act is revealed by statement "B", a further statement "C" showing monies due the Crown under Sections 138 and 138a. of the Canada Grain Act, (as the result of apparent transfer of grain from a lower to a higher grade), is then prepared and forwarded to the Board for any action that may be deemed necessary for the recovery of such sum from the licensee.

Country elevator annual crop year handling summaries, prepared by this office for each elevator licensee indicating overage or shortage in the year's operations by grains in terms of gross amounts and percentage of handlings, is also supplied the Board for review. A statement by individual houses and elevator agents is also forwarded to the Board for any administrative action considered necessary in cases where annual returns reveal excessive physical overages, (.5% or more).

Regarding the second phase of our statistical duties mentioned earlier, extensive data is supplied the Trade relating to the flow of western grain as it is delivered from the farms to the country and mill elevators and later moves into deliverable position at the terminals and subsequently finds an outlet into the domestic market or clears for foreign ports.

With respect to the formal organization of this Branch, the Statistics staff act under the direction of the Chief Statistician, assisted by a Statistician and supervisory clerks immediately in charge of the various sections, such as administration; general statistics; eastern, Pacific and interior terminal elevators; country elevators and Lake-head elevators. At the present time we are also endeavouring to build up the nucleus of a research section. These divisions serve as convenient administration units rather than as "hard and fast" markers for a separation of duties among the staff, and are flexible enough to allow for a shifting or sharing of the clerical work from time to time to achieve a more efficient distribution between the sections.

To a very considerable degree our work is closely tied in with that of the Inspection and Registration Branches. Our source of reference for the compiling of gross and net receipts and shipments at licensed mill, interior private, public and semi-public elevators is the unload and loading advice originating with the Inspection Department.

In the case of country elevator records, in place of Inspection advice, we obtain two series of returns from the companies themselves; a weekly stock report of combined handlings, and at the end of the year an annual summary for each house operated by the company. These weekly stock figures are accumulated, and the final crop season totals checked off against the combined annual returns of the company to test their accuracy.

Daily notice of grain handlings is forwarded both to the Registration Branch at Montreal and to our own office by eastern elevator management, and forms the basis of our records of transfer house activity.

Monthly statistical summaries of net receipts and shipments by grains are

forwarded to the Registration Offices at Winnipeg, Montreal and Vancouver, and may be passed on to the Chief Treasury Officer as a basis for registration fees, (subject to later verification by the Registration Branch), and also provide a means of sight proving Registration Branch paper stock balances.

From time to time it has been necessary to speed up the "taking-off" of statistical returns from source records to present a more adequate picture for the Trade. After some considerable investigation of various machine summary techniques, we found that the relatively simple process of adapting our stationery forms to combined peg board and adding or calculator machine use gave the best promise of achieving this objective most economically. As its name implies, the peg board is simply a bakelite board about 30"x18" in size, to which a metal strip of small posts or pegs, usually $\frac{1}{2}$ " apart, is attached along the upper edge of the board.

Stock report and other forms are punched at the top and scored down every second vertical columnar line to facilitate folding. These forms, when folded, are dropped over the metal posts so that the left-hand column of figures of each form remains in view. The forms are then held firmly in position by a metal tube fitted over the row of pegs, and some 20 to 25 separate returns may be placed on the board at one run-off. An adjustable T-square, sliding in a metal groove at the left, may be moved by the operator at will to facilitate the reading of figures along each line. Once the forms have been folded and placed in order on the board, the machine operator may proceed to add the figures, line by line, and insert the machine totals on a summary sheet. When the outside column of all the forms has been added, the adjoining column of each return is readily "flipped up", re-exposed to view on the board, and the same summary process repeated until all the data has been taken off and totalled.

Where trained operators are available, key-drive electrical calculators prove very efficient. Ten-key electric adding machines are also effective, and may be operated by the touch system after comparatively little practice.

The adoption of a peg board summary system is contingent upon uniformity of returns, and so long as we were required to record daily handlings of grain by grades, no substantial change-over to this method could be made.

For some years this office has been duplicating grade recording functions of the Registration Branch. This problem was taken up with the Secretary and the Registrar, and through the good co-operation of all concerned, a solution worked out. The Registration Branch agreed to supply our office with grade quantities of net receipts and shipments for intervening weigh-over periods to complete weigh-up statements, and also to furnish crop year grade handling totals for statistical summaries, enabling us to discontinue this grade entry feature beginning with the 1948-49 crop season. After this arrangement had been made, it was possible to put into practice the peg board method.

There are a number of advantages to the peg board system. For example, it eliminates much duplicate hand entry, makes for greater accuracy through cross balance control, allows for further specialization of labour, and provides a ready means of accumulating data throughout the year.

This change-over in the system of processing statistical returns has proven very satisfactory, and the saving effected in labour hours has, in our opinion, justified the additional expenditure for office equipment.

Clerical short-cuts have been introduced through the consolidation of grades on stock report forms to coincide with the manner in which statistical data is published.

A peg board strip has been designed for the compiling and analysis of lake shipments, outturns and weighted lake freight averages. On this strip, 2" wide and about $\frac{1}{2}$ " long, all relevant particulars of each vessel cargo leaving the Lakehead relating to steamship company, port and elevator of unload, name of vessel, date loaded, date unloaded, the billing and outturn weights by grains, the charter freight rate and total freight charges by grains, etc., will be entered. When complete, the strip should provide the entry source from which further analysis; e.g., by steamship companies, ports and elevators of unload, etc., may be obtained by re-sorting and summarizing the strips by machine from the peg board. Previously, each of the five or six separate analyses called for an additional series of hand entries. The same form may also be used to compile the stern vessel transfer movement.

With regard to the publications of the Branch, reference may be made to the weekly "Canadian Grain Position" release and the "Annual Canadian Grain Export" booklet, probably two of the more widely circulated series.

The former presents a weekly picture of grain stocks in licensed storage and in transit, and also attempts to trace in some detail the flow of grain as it is brought into

the country elevators from the farms and moves along through the elevator system until it finally enters domestic and export outlets.

A substantial body of data has been developed in our yearly export booklet dealing with the physical volume and foreign destination of Canadian grain clearances, supplemented to a limited extent by price and other general trade statistics.

Grain export destination data is derived from vessel loading advice and reports on rail shipments (to the United States) supplied by elevator licensees and forwarded by American grain correspondents at the principal ports on the Great Lakes and the United States Atlantic seaboard.

Through the courtesy of the Canadian Wheat Board we are able each month to verify wheat export destination summaries with their records. Canadian Wheat Board coars grain permit lists are also followed up with the shippers for delivery confirmation particulars.

Canadian Customs returns of the External Trade Branch, Dominion Bureau of Statistics, provide export data on Canadian milled grain products, and published returns of the Bureau of the Census, United States Department of Commerce, are used for compiling United States imports of Canadian grain for domestic consumption and milling in bond. We hope to further improve the value of this publication to the Trade by broadening the scope of reference material.

The weekly domestic and export grain price synopsis prepared by the Statistics Branch endeavours in as clear a manner as possible to set out in table form the somewhat complex relationship which exists between producer, domestic and export, fixed and "free market" quotations. This release is forwarded to a limited number of addressees, but is reproduced for wider circulation by the Dominion Bureau of Statistics in their weekly grain bulletin and in their "Monthly Review of the Wheat Situation."

Each month throughout the season of navigation the Trade is kept informed of prevailing weighted average lake freight rates compiled from charter confirmations filed with this office under the provisions of the Inland Water Freight Rates Act, 1923.

Lake cargo outturn particulars are furnished weekly to a number of Boards of Trade, interested shippers, and outturn insurance underwriters.

The bulk of our annual crop year tables, which review Canadian grain crop handlings, weighted lake freight rates and grain market quotations, appear in the "Report on the Grain Trade of Canada" published by the Dominion Bureau of Statistics, and represent about 80% of the grain statistics presented in this edition.

I hope that through this talk you may have a better understanding of what we are doing in the Statistics Branch, and I would be only too pleased to endeavour to explain in greater detail any particular phase of our work in which you may be interested.

Lecture delivered at Winnipeg
on March 8, 1949, by
Mr. A.T. Calder, Chief Statistician.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

LECTURE NO. 7

REGISTRATION BRANCH

Warehouse receipts were first introduced to the grain trade about the year 1908 and were issued by the elevator companies and registered with the Grain Exchange.

With the coming into force of The Canada Grain Act, effective April 1, 1912, the Board of Grain Commissioners was established, and the responsibility for the registration of warehouse receipts was placed on the Board.

Under the Act the Chief Grain Inspector was appointed Registrar, with two deputies, offices being opened at Winnipeg and Fort William, followed some years later with offices at Vancouver and Montreal. In 1933 the Fort William office was closed, the staff being transferred to Montreal.

In 1931 the Chief Grain Inspector relinquished the position of Registrar, an appointment then being made to the position independent of the Inspection Branch.

Under the present Act there are two Divisions, Western and Eastern.

When grain is delivered to a semi-public or public terminal elevator, the owner or his representative turns over the bill of lading to the terminal elevator operator and, on payment of the freight charges, receives a terminal elevator warehouse receipt.

These documents of title are transferable by endorsement and can be used for obtaining advances from the banks. Actually, the terminal warehouse receipts are the documents mostly used in trading in grain. When an exporter desires grain to export he purchases terminal warehouse receipts for the amount of grain required in store at a terminal elevator at the point from which he proposes to ship it forward.

To protect all holders of warehouse receipts a system of registration has been developed and warehouse receipts are not negotiable unless registered by the Board of Grain Commissioners.

The Canada Grain Act provides that licensed semi-public and public terminal and Eastern elevator operators shall issue warehouse receipts in exchange for the bill of lading covering grain delivered to their elevator, and also provides that the grain shall not be shipped from the elevator unless the warehouse receipt is surrendered.

Section 15 (v) of the Act provides that the Board may make regulations requiring the registration and cancellation of terminal warehouse receipts and transfer receipts specifying the mode and time and conditions of their registration and cancellation. The Board's Regulation No. 1 covers this requirement for the terminal elevators, and Regulation No. 2 for Eastern elevators. These regulations provide:

1. the form of warehouse receipt to be used;
2. two signatures by the issuing party;
3. a list of all outstanding receipts as at July 31st in each year to be delivered to the Registrar of Warehouse Receipts;
4. for presentation to the Registrar for registration, by the elevator operator, warehouse receipts for all grain unloaded in his elevator;
5. for presentation to the Registrar for cancellation, within 48 hours after shipment, warehouse receipts to cover such shipment;
6. for submission to the Registrar of a daily stock sheet by the elevator operator, showing receipts and shipments;
7. for splitting receipts;
8. for consolidating two or more receipts.

All grain received into and shipped from terminal elevators is inspected and weighed by the Board's Inspection and Weighing Branches and a record for each elevator is submitted by these Branches daily to the Registration Branch. It is the duty of the Registration Branch to ensure that warehouse receipts are registered for all the grain received and cancelled for all grain shipped.

A ledger is maintained in the Registration Branch for each elevator, with each different grade on a different page and the receipts and shipments are posted daily, so that these ledgers give an exact record of all the grain in each elevator at any time and the total of the warehouse receipts outstanding for each grade in each elevator.

When warehouse receipts are presented to the Registration Branch for registration they are checked against the records and, if in order, are stamped and signed by officers of the Branch so authorized. The warehouse receipts are then returned to the elevator

company, the Registration Branch securing a signature from the elevator company's representative as proof of delivery.

Possibly a fairly good illustration of a warehouse receipt is a marked cheque on a bank. The bank sets aside or designates a fixed amount to cover the cheque on presentation. The elevator company does the same regarding a receipt, designating the same grade and quantity to be in a position to honor the receipt when presented to cover a shipment of grain.

When grain is shipped from a semi-public or public terminal elevator, warehouse receipts covering are presented to the Registration Branch for cancellation and the required entries made in the grain ledgers.

Under the Board's regulations original warehouse receipts may be presented to the Registration Branch to be split into two or more parts. In this case the original warehouse receipt is cancelled, new ones being issued and termed "splits." This generally happens in making up amounts for shipments or treatments.

In the matter of the drying of grain, either by natural or artificial means, artificial drying means just what the term implies. Natural drying means the mixing of tough grain with dry grain. Natural drying is permitted under the Act and regulations. The warehouse receipts for tough grain are cancelled and replaced with receipts calling for straight grade. In cases where the elevators have moved damp grain into tough grain of the same grade, particularly grain grading above 4 Northern, the receipts for the damp grain are cancelled and receipts for tough grain issued, but the "tough" receipts are stamped in green and also carry special green markings. Grain covered by these specially marked receipts cannot be moved into straight grades of the same grade, but must be shipped as tough or artificially dried.

In the case of grain artificially dried the receipts covering the tough or damp grain, as the case may be, are presented for cancellation and new receipts issued calling for grain of the grade set by the Inspection Branch after drying. In all cases of the drying of grain, or adjustments, entries are made in the grain ledgers. These ledgers are so drafted, a record is kept of all grain, particularly in the higher grades, that has been dried by either artificial or natural means.

Under the Canada Grain Act all public or semi-public terminal elevators are required to have an annual weigh-over or audit. Just prior to the commencement of a weigh-over at an elevator, the Weighing Branch makes a cut-off of operations, sending details of the cut-off to the Registration Branch, such details consisting of the last unloads and last shipments at the elevator just prior to the Weighing Branch assuming charge. The grain ledgers in the Registration Branch are then closed at the time and date to correspond with the cut-off date. The elevator company prepares statements by grades of their outstanding warehouse receipts as at the commencement of the weigh-over, these statements being furnished in duplicate to the Registration Branch. The statements so received are checked against the records and if in order, one copy is certified and forwarded to the Statistics Branch of the Board to assist in the preparation of statements resulting from the weigh-over.

Copies of these statements so prepared are received by this Branch through the Secretary's office with copies of the Board's instructions to the elevator company regarding the adjustments to be made in regard to the overages and shortages resulting from the weigh-over. In these adjustments the elevators are required to surrender warehouse receipts to cover shortages and are permitted to issue and register warehouse receipts for the overages.

At the close of the crop year, July 31st, all public and semi-public terminal elevators must submit a statement of their outstanding warehouse receipts, by grades, to the Registration Branch.

Also, as soon as possible after the close of the crop year, the Registration Branch must furnish the Statistics Branch with a statement covering each elevator, showing the amount of grain, by grades, received into and shipped out of the elevator during the crop year just ended.

In the Eastern Division the principle is very much the same; that is, the issuing and cancelling of warehouse receipts and reports or statements made relative to the work. However, in the Eastern Division there are two types of receipt: the regular warehouse receipt and one called a transfer receipt. The latter type is the one most generally used. About 75% to 80% of receipts issued are transfer receipts, but these are not negotiable. They are issued in duplicate for all unloads by the elevator company; the original, with a registration sheet, being forwarded to the Board's Registration Office.

at Montreal, and the copy being retained by the elevator. As the grain covered by these transfer receipts is shipped out, the copies, accompanied by cancellation reports, are forwarded to our Montreal office. After the checking of records the original is cancelled and, with the duplicate, is returned to the elevator company. If desired, the regular negotiable receipt can be issued on the presentation of the properly endorsed bill of lading. These, however, are not very often called for.

When Eastern elevators are to be audited or weighed over, details of the cut-off are secured and statements of outstanding warehouse receipts are checked, certified and sent to the Statistics Branch, Fort William, as is done in the Western Division. The same procedure is also carried out in the matter of adjusting the overages and shortages resulting from the weigh-over.

Under the regulations fees are charged for registration and cancellation, as follows:

Western Division - 4 cents per thousand bushels for registration, and same charge for cancellation;

Eastern Division - 1 cent per thousand bushels for registration, and same charge for cancellation.

Lecture delivered at
Winnipeg, Man., on
March 10, 1949,
by Mr. E.L. Jaffray, Registrar.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

LECTURE NO. 8

THE LICENSE AND BONDING BRANCH

To protect the producers of western-grown grain and the whole grain handling organization, all grain handling elevators in Western Canada, elevators in Eastern Canada that handle western-grown grain for export, as well as all parties, firms and corporations operating as track buyers of grain, grain commission merchants and grain dealers dealing with western-grown grain, are required by the provisions of The Canada Grain Act to procure licences annually and to deposit security as a guarantee for the due performance of all the obligations imposed upon them by the said Act and any rules and regulations and orders promulgated thereunder.

The authority for licensing and bonding, as well as the general terms and conditions under which licences are granted, is set forth in Sections 79 to 88 of the Act, and many other terms and conditions relating to each individual class of licence are to be found in the subsequent sections.

FUNCTIONS OF THE BRANCH

The License and Bonding Branch is charged with the responsibility of administering for the Board those sections of the Act relating to the licensing and bonding of grain dealers and grain handling elevators and various other matters relating thereto.

The most important function of the Branch is to see that each and every grain elevator, track buyer of grain, grain commission merchant and grain dealer who is in any manner connected with the receiving, storing or handling of western-grown grain identified by any grade name is licensed and bonded in the proper manner to fully cover the class of business being transacted.

In addition to the licensing and bonding activities of the Branch, there are many matters relating to the terms and conditions under which licences are granted, over which the Branch must maintain a constant check, such as the forms of purchase tickets, storage receipts, contracts and purchase notes being used by the licensees; the tariffs and charges made for receiving, storing and shipping grain at each licensed elevator; the reconditioning of rejected grain weighing scales; the discrepancies found by the Assistant Commissioners when inspecting licensed buildings; and the history, employment and excessive overage record of each and every agent employed by the licensees. The Branch is also charged with the responsibility of collecting for the Board the one per centum levy imposed by Section 13 of the Prairie Farm Assistance Act.

DEFINITIONS OF CLASSES OF LICENCES

Under the present system of warehousing and handling Canada's western-grown grain, there are ten different classes of licences provided for in the Canada Grain Act. These are divided into five distinct classes: country elevators, mill elevators, terminal elevators, eastern elevators, and grain dealers who do not warehouse grain.

In order that there may be no doubt or uncertainty as to the authority of the Dominion Government to control the grain handling facilities and to enact the provisions of the Canada Grain Act relating to the licensing of such facilities, all grain handling elevators of whatever variety or kind mentioned in the Act have been declared, either in the Canada Grain Act of 1925, the present Act of 1930 or the Canadian Wheat Board Act, to be works for the general advantage of Canada, and for greater certainty each individual elevator has been listed in various schedules appended to these Acts.

An "elevator", according to Paragraph 1 of Section 2 of the Canada Grain Act, is any premises into which western-grown grain may be received or out of which it may be discharged directly from or into railway cars or vessels; in other words, buildings used for the handling of western-grown grain, which are situated adjacent to any railway right-of-way or spur track thereto connected. There are approximately 5,700 elevators of all classes whose operations come within the scope of the Act. These have a combined storage capacity of 437,000,000 bushels.

Almost all elevators are located on railway property which is leased to the elevator companies. An annual rental based on the track frontage of the site is charged by the railway companies.

Under Section 77 of the Act, every railway company is required to notify the Board whenever any agreement is entered into for the construction of any elevator on its lines. They also advise us of all cancellations and transfers of sites. The License & Bonding Branch maintains a constant check on this information and must see that each new elevator is properly licensed immediately it is ready for operation and that existing licences are transferred or cancelled, as the case may require.

"Country elevators" are those located at primary shipping points in the Western Inspection Division, in which grain is stored or from which it is shipped BEFORE the grain has been inspected and graded under the Act (Section 2 (e)). They are not permitted to receive WHEAT from railway cars except by order or regulation of the Board, and then only for the purpose of seed or feed distribution or conservation of storage, (Section 107a.). There are approximately 5,500 country elevators, divided into two groups:

The Public Country Elevators which are those used for the purpose of receiving, storing and shipping of grain owned by the public as well as grain owned by the manager. "Public Grain" is the term applied to any grain that is not solely the property of the manager of the elevator. The public countries must accept, during reasonable and proper business hours, all grain in good condition that is offered for storage, provided there is accommodation available at the elevator.

The Private Country Elevators which are those used for the handling of grain belonging only to the licensee; either grain produced by him or grain bought and fully paid for at or before the time of receipt into the building. An elevator can not be licensed as a PRIVATE country elevator if it is the only grain handling building located at the shipping point, (Section 121).

"Terminal elevators" are elevators located in the Western Inspection Division, into which grain is received after the issue of an inspection certificate or contemporaneously with the issue of such a certificate (Section 2 (y)). These are located at the terminal ports at the Head of the Lakes and the Pacific Coast, with a few at interior terminal points. The terminals are separated into three classes:

The Public Terminals which are operated mainly for the purpose of receiving, storing and shipping of public-owned grain at which all grain received is binned only with grain of the same grade and not otherwise (Section 125 (1)). The managers of public terminal elevators may purchase and handle grain for their own account.

The Semi-Public Terminals are those which receive and handle public grain as well as grain owned by the manager of the elevator at which the manager of the elevator is expressly permitted by the terms of his licence to bin as he sees fit all grain received except WHEAT graded 1 Hard, 1, 2 and 3 Northern, and 1 and 2 C.W. Garnet. These six grades must be binned only with grain of the same grade, (Sections 2 (x) and 125).

In the early days of the Canada Grain Act public terminal elevators were strictly storage elevators for the handling of public grain only. Under the present Act, however, the only difference between a public terminal and a semi-public terminal is the binning restrictions. They must both receive all grain in good condition that is offered for storage, provided, of course, there is available storage space of the kind required by the party offering the grain, (Section 133 (1)).

The Private Terminals are those which are used exclusively for the purpose of handling grain belonging to the manager of the elevator. Wheat of the top four grades of Red Spring and 1 and 2 C.W. Garnet must be binned only with grain of the same grade, but all other grains may be binned as the manager sees fit.

A "mill elevator" is an elevator in the Western Inspection Division which is operated by a person, firm or corporation primarily engaged in the business of manufacturing grain into some other product into which there is received no grain other than the property of the manager of the elevator, (Section 2 (r)); that is, grain purchased at or before the time of the receipt of the grain into the elevator. Except when shipping wheat to a manufacturing plant operated by the same manager, the manager of a mill elevator can not, without the permission of the Board, discharge out of such elevator more than 5% of the total quantity of wheat of the same class as was received during the same crop year.

An "eastern elevator" is one situated in the Eastern Inspection Division, which receives and handles western-grown grain for export. The Eastern elevators are not primarily either storage or cleaning elevators, but are transfer houses used mainly for the purpose of transferring grain which has already been inspected under the Canada Grain Act from cars and lake boats to bins and then from the bins to canal or ocean vessels. These elevators must accept, unless it is otherwise provided in the terms of their licences, all grain in good condition offered for storage, provided there is space available at the elevator, (Section 133 (1)). The Board, however, may, for certain reasons and under certain conditions, relieve any Eastern elevator manager from the obligation to receive, store or handle western-grown grain or to receive grain without discrimination and in the order of arrival of the grain at the elevator. Practically every Eastern elevator located at the inland lake ports has been granted exemption in some form or another covering part of their storage space.

"Grain Dealers who do not warehouse grain." There are three classes of dealers who do not actually warehouse grain:

"The Track Buyer of grain" - any party, firm or corporation, who contracts to purchase western-grown grain which at the time of making the contract to purchase is contained in any railway car and has been billed to some destination, (Section 144).

"The Grain Commission Merchant" - any party, firm or corporation who acts on behalf of any other party in the buying, selling or arranging for the weighing, inspection and grading of any western-grown grain described by any grade name, (Section 140).

"The Grain Dealer" - any party, firm or corporation whose operations are not covered by any other class of licence, who contracts to purchase western-grown grain described by any grade name other than on a strictly cash basis (excluding contracts made on the premises of a recognized grain exchange or through brokers who are members of such an exchange), (Section 149). Grain dealers generally contract to purchase grain while it is still on the farms or in process of being transported to an elevator or grain loading platform.

"Manager" and "Operator". These two words are used many times throughout the Act, and they are often misunderstood and wrongly interpreted by parties not familiar with the Act. Their meaning is clearly set forth in the interpretations given in Section 2 of the Act. "Manager", when used with respect to a grain elevator, means the person in possession of the premises either as owner or lessee or a person entitled under a contract with the owner or lessee to operate the elevator for his own benefit. "Operator", when used with respect to an elevator, means any person appointed or authorized by the manager of an elevator to take charge of the operation of the elevator or to represent him in connection with its operation. In other words, the manager is the party to whom licence has been granted and the operator is the authorized agent of the licensee.

LICENSING AND BONDING

The general routine relating to licensing and bonding is as follows:

Applications for Licences: All applications for licences must be submitted on special forms approved of and provided by the Board. There is a separate form for each class of licence. They are made over statutory declaration and must be signed only by responsible officials of the company in accordance with the instructions set forth in Paragraph 16 of Regulation No. 17. The licence fee must be paid at the time of submission of the application. The fees are \$25.00 for each terminal and eastern elevator and \$5.00 in all other cases. Applicants who have not previously been licensed under the Canada Grain Act are required to furnish a certified statement listing their assets and liabilities and, in the case of corporations, a copy of their charter. This is necessary in order that it may be determined whether or not the applicant is legally in a position to carry on the business for which a licence is requested. Applications for renewal of licences are dealt with by the Branch without reference to the Board, but in cases of new applicants, change from one class of licence to another and transfers of licences, the applications must be referred to the Board for approval and recording in the minutes of the Board.

In order to qualify for elevator licences, the buildings must conform to certain standards in the way of machinery and equipment so that they may properly perform the functions for which they are licensed. The applications for licences, therefore, contain a series of questions to be answered relative to the type and construction and location of the building, storage capacity, cleaning, drying and scale equipment. When any application is received, it is carefully checked as to the legal trade name of the applicant and to see that each and every question has been fully and properly answered. If the application is in order, a receipt for the licence fee is made out, the application given an identifying number, a bond prepared and dispatched to the applicant for completion in conjunction with an approved surety company, the fee transferred to the Accounts Branch, and certain entries made in the permanent records of the License & Bonding Branch. If an application is not acceptable, (which might be for any one of several reasons, such as incomplete, storage capacity shown not in agreement with rated capacity, no proper receiving scale, agent subject to a shortage bond, etc.), the application is returned for correction or explanation of the discrepancies and, when adjusted, may be resubmitted.

Bonding: All applicants for licences, before any licence may be issued, must furnish the Board with security, by way of bond completed by an approved surety company or otherwise to the satisfaction of the Board, for the due performance by the licensee of all the obligations imposed upon him by the Canada Grain Act and/or by any regulations or orders of the Board made thereunder, (Section 79 (3)). New bonds must be deposited for each year. Specially-worded bonds are used for each class of licence and, for obvious reasons they must all be prepared in the offices of the Branch. Special care must be taken with the preparation of the bonds in order that no loophole may occur which would enable the surety company to evade its responsibility, should the principal to the bond commit any default. The correct legal name and head office, together with a description of the location of operation or elevator and period of operation, must be listed and the document signed only by certain designated officials of the principal and the surety company, and their respective seals affixed.

In the case of loss occurring through the failure of any licensee to fulfil his obligations under the Act, the Board may realize on the security file and use the proceeds for the benefit of the injured party or parties, (Section 79 (4)). A number of years ago

There was at least one default each crop year. In recent years, however, due to the close supervision and system of maintaining constant check on the liabilities of the licensee, a default is a rare occurrence. A schedule governing the amounts of bonds to be filed by the applicants for licences has been established by an order of the Board. This is reviewed annually, and the Board from time to time may make revisions in the amounts.

Licensing: When an application has been approved and the applicant's surety has deposited the completed security with the Board, a licence may be issued.

New licences are issued for each crop year. They cover the period from the 1st day of August, or date of commencement of operations, as the case may be, to the 31st day of July in the following year. All licences automatically expire on July 31st each year, unless, of course, they have previously been cancelled by the Board for some reason, (Section 82).

While a licence remains in force and effect the licensee shall transact his business in accordance with the provisions of the Canada Grain Act and the rules and regulations and orders of the Board, and in all his transactions under his licence he must use only the authorized forms of tickets, receipts, contracts and notes or other forms as specified in the Act, and must keep such records and submit such returns as may be directed or required by the Board. If any licensee operates in violation of disregard of the law or fails to make any payments due under any contracts made as a licensee, his licence, after proper hearing and due notice, shall be revoked by the Board, (Section 80).

The licences must be issued in the correct legal name of the licensee. These show the head office and, in the case of elevators, the location of the elevator. The Eastern elevator licences also show any special exemptions that may have been granted under authority of Section 133 (1) of the Act. All licences bear the lithographed signature of the Secretary of the Board and must be signed by the issuing officer and impressed with the seal of the Board. All elevator licences must be posted in conspicuous places at the driveway to the elevators.

Only one licence per elevator is granted each crop year, (unless, of course, there is a change in the nature of the operations at any elevator); consequently, if any elevator is sold or leased subsequent to the issuance of a licence, the new manager must apply for transfer of the licence to himself as from the date he commences to operate the elevator on his own account. Special forms upon which to apply for transfer of licence are supplied by the Board, and all transfers of licences must be recorded in the minutes of the Board. The new manager must deposit security in the usual manner, and when this has been done, certification as to transfer is made upon the face of the licence. The transfer fee is \$1.00.

Licences are not granted for the operation of any elevator, the operator of which is not subject to a grain shortage bond; and if a grain shortage bond is entered into after the issuance of any licence, the licence is immediately cancelled, (Regulation 18 (9)); nor is any licence granted for the operation of an elevator that is not equipped with the proper type of grain-weighing receiving scale, (Sections 91 and 107).

Elevator licences specifically state that they are issued only for the building described in the application for licence. Changes are frequently being made in the rated storage capacities by the erection or demolition of annexes and remodelling of elevators, and in these cases the licensee must file an amended application for licence.

Licensed Elevators

There are, of course, always a certain number of elevators which are not licensed for one reason or another. According to Section 54 of the Act, railway and transportation companies are prohibited from receiving any western-grown grain from any unlicensed elevator or from discharging any grain into such an elevator after the expiration of 48 hours notice by the Board that the manager of the elevator is not licensed. It is obvious that one of the main purposes of this section is to assure that elevators are not used for the purpose of handling western-grown public grain unless they have produced licences under the Act, and to strengthen the Board's control over grain handling facilities.

As soon as possible after the commencement of each licence year, this Branch advises the railway and steamship companies of all unlicensed buildings that are elevators within the meaning of the term as used in the Act, and thereafter, throughout the season, keeps them fully informed of all changes in the licence situation.

In all cases where PUBLIC grain remains in store at the end of a crop year, the licence must be renewed.

List of Elevators and Licensees

Once each year, a 350-page statement is prepared by the Branch, listing all elevators, licensed and not licensed, in the Eastern and Western Inspection Divisions, giving location, name of manager, storage capacity, kind of licence of each elevator, together with several summarizing statements regarding the grain storage capacity, lists

of the licensees and other relative information. This statement is published in printed form by the Department of Trade and Commerce and is used extensively by the grain trade, the Canadian Wheat Board, railways, banks and many others. Up to the crop year of 1940-41 the publication was printed annually, but since then, owing to the excessive cost of printing, (approximately \$1600), it has been printed every second year only. For the years when it is not printed, statements, listing all changes since the last publication was issued, are prepared, mimeographed and distributed from this office to all parties who received the printed copies.

Statements Issued - Numerous statements relating to the licence situation and the rated storage capacities of the elevators are prepared and distributed throughout each crop year and the Canadian Wheat Board is kept informed by the Branch of all changes as they occur from day to day.

Tickets, Receipts, etc.

Regulation No. 17, Paragraph 3, requires all licensees to deposit with the Board at or before the commencement of each crop year, specimens of all forms of tickets, receipts, notes, contracts or other forms they propose using, pursuant to the provisions of the Act and the terms of their licences. It is one of the duties of the License and Bonding Branch to carefully peruse these forms, (excepting the terminal and eastern warehouse receipts, which is done by the Registration Branch), and to see that the licensees use only the authorized forms.

TARIFFS OF CHARGES

Paragraph 4 of Regulation No. 17 requires all licensees to file with the Board, at or before the commencement of each crop year, a schedule of charges to be made at each elevator operated. Regulation No. 21 sets forth the maximum charges that may be made by any public country elevator licensee. Regulation No. 22 sets the maximum charges that may be made at public and semi-public terminal elevators, and Regulation No. 20 sets the eastern elevator maximums. The eastern elevators are divided into four groups: Georgian Bay and Lower Lake Ports, Upper St. Lawrence, Lower St. Lawrence and Atlantic Ports, for each of which there is a different maximum.

In the case of public country elevators, the tariff of charges is shown upon the applications for licences, and the rates charged must be the same at all country elevators having the same manager (Section 119) unless it is ordered otherwise by the Board in order to meet special competition at a specified point. The terminals and eastern elevators are required to submit special statements regarding their charges.

The License and Bonding Branch must carefully check all tariff submissions to see that the charges being made by the licensees are at or under the maximum amounts allowed under the regulations of the Board and must report all discrepancies to the Board for their action.

Any public country elevator licensee may increase or decrease his rates of charges provided, of course, he does not exceed the maximum allowed, by giving three days' notice of his intent to do so to the Board (Section 83), but public and semi-public terminal and eastern elevator rates may not be changed during any crop year except by order or regulation of the Board. At the present time practically all licensees are operating at the maximum rates allowed.

REJECTED WEIGHING SCALES

All grain delivered to licensed elevators must be properly weighed on receipt (Section 91). At the country elevators the weighing must take place in full view of the party delivering the grain, (Section 107). All grain elevator scales are inspected at least once each year by officials of the Dominion Weights and Measures Inspection Service and the district inspectors send to this Board semi-monthly reports listing all elevator receiving and shipping scales that have been rejected by them on account of faulty weighing. It is most important that the scale equipment be maintained at all times in proper weighing condition, in order that the producers may receive fair weights. Defective scales are also one of the causes of excessive overages at country elevators, a matter which you have previously heard Mr. Rayner and Mr. Calder refer to. A constant check is kept by the License and Bonding Branch on the inspection and rejection of grain-weighing scales, and whenever rejections are reported, the Branch immediately contacts the licensee and requires that action be taken without undue delay to recondition the scale. If this is not done within a reasonable time following rejection, the licence for the elevator may be suspended or cancelled.

INSPECTION OF COUNTRY ELEVATORS

One of the duties of the Assistant Commissioners to the Board is to inspect the country elevators and report to the Board, on special forms, any irregularities that the

find, such as missing sieves, certain forms of tickets and receipts not on hand, no sample boxes or cabinet for storing samples that can be locked, or the licence, rules, regulations and bin diagram not posted in the driveway to the elevator. After perusal by the Board, these reports are turned over to the License and Bonding Branch, which takes the necessary action to see that the licensee immediately remedies the irregularities.

AGENTS OF LICENSEES

Paragraph 2 of Regulation No. 17 requires that all licensees shall report to the Board, in writing, the name or names of each and every agent authorized by the licensee to issue tickets, receipts, notes or contracts and to purchase, contract to purchase or handle grain in the name of the licensee, giving the date of appointment and location at which operating, and they must report to the Board whenever any agent is released from the licensee's service or is transferred from one location to another. Card index records are maintained by the Branch which show the history of each agent since first employed. These show the periods employed, by whom employed, where located, movements from one location to another, and other relative information. There are over 6,500 agents employed by the licensees.

GRAIN LOADING PLATFORMS

Under Section 60 of the Act, the Board is empowered to order any railway company to construct new or enlarge existing grain loading platforms, provided application is made to the Board by ten or more persons occupying at least 1,200 acres of land within 20 miles of a railway siding. It has not been necessary to issue any orders under this section of the Act for some years, as the railway companies willingly construct platforms where and when they are actually required. This Branch maintains a record of all grain loading platforms in Western Canada, showing the location and car loading capacities. Changes are constantly taking place, and revised statements are issued from time to time.

THE PRAIRIE FARM ASSISTANCE ACT

In addition to its functions under the Canada Grain Act, this Branch is also charged with the responsibility of collecting for the Board the one per centum levy imposed under the provisions of the Prairie Farm Assistance Act. This Act was promulgated for the purpose of providing certain assistance to producers of grain in the Prairie Provinces, and is administered by the Dominion Department of Agriculture. Under Section 13 of this Act, a levy of one per centum of the purchase price paid for all wheat, oats, barley and rye sold to or through Canada Grain Act licensees, and certain unlicensed mills, is imposed for the purpose of creating a fund to provide the assistance given by the Act. You will recall the references made to this matter by Mr. McKenzie and Mr. Rayner.

The Board of Grain Commissioners, on account of its control over and contact with the licensees handling the grain produced in Western Canada, was appointed under Section 13 of the Act as the collector of the levy and assigned this work to the License and Bonding Branch. The Board has no other interest or function whatever in the administration of this part.

Each and every licensee of a country, private terminal and mill elevator, and certain semi-public terminals that purchase grain directly from producers, also all unlicensed flour and feed mills that have been declared to be works for the general advantage of Canada, is required to deduct one per cent from the purchase price paid for wheat, oats, barley and rye delivered to their premises and to remit such monies to the Board monthly. The levy must also be deducted from the purchase price paid to a producer for any grain handled THROUGH a licensee or his agents, irrespective of whether or not the grain is actually received into an elevator. The levy is not applicable on farm-to-farm transactions.

On grain purchased on the basis of street price, no deductions are permissible before calculation of the levy amount. The levy in such cases is a straight one per cent on the purchase price. On grain purchased basis in store at a terminal elevator, the purchase price is subject to deduction of lawful charges for freight, bulkheading, country elevator elevation, if any, inspection, weighing and cleaning charges before calculation of the levy amount.

The deduction of the levy must be clearly shown on the cash purchase tickets or other forms of settlement issued by the vendor.

Special forms upon which to report, monthly, certain particulars relating to the collection of the levy are supplied by the Board, and if any licensee fails to remit the levy within twenty days following the end of the month in which the levy was collected, penalties are applied at the rate of one-thirtieth of one per cent of the levy amount for each day that payment is in default. The licensees are also required to submit annual returns within 60 days after their annual cut-offs have been made in their head office accounts, and must account for any discrepancy between these final figures and the totals compiled from the monthly returns.

The term "licensee" as used herein includes the unlicensed flour and feed mill in Western Canada that have been declared in any Dominion statute to be works for the general advantage of Canada.

Individual ledger cards are maintained for each licensee, showing by grains under each different class of licence the number of bushels of each kind of grain purchased, or handled, the purchase price paid, and the amount of levy collected.

If the amount of levy remitted by a licensee does not equal at least one per cent of the purchase price figure shown on his monthly and annual returns, the licensee is required to explain the discrepancy, and if a satisfactory explanation is not made to the Branch, the licensee is required to pay the shortage, even though he may not have actually collected the money.

The remittances in payment of the levy collections are transmitted to the Board Accounting Branch, who issue the official receipts. For the protection of the License and Bonding Branch, the Accounts Branch certifies on the face of the report forms that they have received the payment and have issued receipt.

There is considerable correspondence and detail work involved relating to the collection of this levy and the recording thereof. Statements have to be prepared at the end of each calendar, fiscal and crop year for the Department of Agriculture, the Treasury Board and our own Department. One employee's full time and a considerable amount of my time is taken up by this phase of the Branch's work only.

The levy collections vary from \$2,000,000 to \$6,000,000 annually, according to the size and value of the crop marketed. The total collection since 1939-49 to date amounts to over \$37,500,000.

Lecture delivered at Winnipeg, Man., on March 15, 1949, by Mr. C.F. Spittle, Licensing Officer.

LECTURE NO. 9

The Collection of Revenue and the Control of
Expenditures as they affect the Board of Grain
Commissioners

Back in the year 1878 an Act was passed creating the Consolidated Revenue Fund, and Section 3 of this Act directs that all public moneys shall be paid to the credit of the Account of the Receiver General, and that such moneys shall form the Consolidated Revenue Fund.

Various Ministers are responsible for the assessment and collection of moneys due the Crown, but once payment is received and the money deposited by a public officer, the Minister of Finance, as Receiver General, has control over such moneys.

The Board's authority for collecting the revenue that we 'pour' into the Consolidated Revenue Fund is contained in certain sections of the Canada Grain Act. Section 15 of this Act states that the Board may make regulations or orders not inconsistent with the Act, and it is in accordance with this Section that the Board has passed Regulations Nos. 9 and 16 dealing specifically with the collection of fees.

Regulation No. 9 has reference to the Grain Appeal Tribunal and states that every application for an appeal is to be accompanied by a fee of \$3.00. When the decision of the Inspection officer is upheld, this fee is retained by the Board, but when his decision is not upheld, then the fee is returned to the applicant. The revenue derived from this source during the past fiscal year amounted to \$2,730.

Regulation No. 16 pertains to the collection of fees for such services as inspection, weighing, registrations and cancellations, condition reports, unload samples, inspection and weighing service at private, terminal and mill elevators, etc. It would take considerable time to give a detailed account of the various fees collected, but the amount of revenue collected by the different branches for the services they render may be of interest to you. The Inspection Branch takes in the largest share of the revenue, having collected \$696,480.25 out of a total of \$1,404,134.86 for the past fiscal year, which amounts to 49% of the total revenue collected. The Weighing Branch follows close behind with \$639,637.40 for a percentage total of 45.5, and the Registration Branch can lay claim to \$35,936.47, or a percentage total of 2.5.

Sections 97, 105, 122, 141, 145 and 150 of the Canada Grain Act specify the amount of the fee payable for the issuance of elevator licences, and from this source we obtained during the past fiscal period \$29,345.00, or 2% of our revenue. Under certain circumstances a fee may be refunded, in which case we issue a cheque to the individual concerned and charge it back to the Consolidated Revenue Fund. Our authority to refund is a minute of the Board of Grain Commissioners.

One other source of revenue is that derived from grain overages, in accordance with Sections 138 and 138a. of the Canada Grain Act. The amount is placed in a special account and therefore is not included in the \$1,404,000.00. To date there is \$17,532.05 in this fund.

It will be noted that no reference has been made to such branches as Statistics, Research Laboratory, Accounts or Executive, this being due to the fact that they are non-revenue producing.

Method of Collecting Fees:

Each month the various branches forward to the Accounts Branch a statement of fees activities. From these statements invoices are prepared and sent out to the various debtors concerned. The cheques in payment of the services rendered are made payable to the Receiver General in accordance with Section 167 of the Canada Grain Act.

Upon receipt of a cheque, we must perform the following operations in accordance with the Consolidated Revenue and Audit Act: 1. Prepare a receipt in duplicate, the original being forwarded to the firm from whom the money is received and the duplicate being kept on our file; 2. Record the amount received on a cash blotter; 3. Purchase a draft on Government Account, or more commonly called a Receiver General Draft, for the total cash received each day; 4. Forward the draft to Ottawa with a letter showing the classification of revenue; 5. Post the amounts to an Accounts Receivable Ledger.

The classification referred to above is that requested by the Department of Finance in accordance with instructions issued in P.C. 1/1956 of March 12, 1942. This classification is divided into two main headings called Tax and Non-Tax revenues. The revenue of the Board falls into the second group, and is further divided into classes such as Privileges, Licenses and Permits, Proceeds from Sales, and Services and Service fees.

Each month a statement of all revenue received in our office is prepared for the information of the Board, and is prepared in such a manner as to show the Board the revenue received for each type of fee, (inspection, weighing, licence fees, etc.) and for

each branch of the Board. At the year end a further statement of all revenue received is prepared for the Board to be incorporated in its annual report, and it shows the revenue collected from each type of fee for each branch and point.

Expenditures:

In the year 1931 the Consolidated Revenue and Audit Act was amended, and one of the important changes in the Act was the creation of the Office of the Comptroller of the Treasury. The purpose of this change was to maintain a more complete control over the administration of the Consolidated Revenue Fund. The Office of the Comptroller of the Treasury should not be confused with the Treasury Board. As stated in a previous lecture the Treasury Board is composed of six members of the Cabinet and acts as a committee of the King's Privy Council for Canada on all matters relating to Finance, Revenue and Expenditure. The Comptroller of the Treasury, on the other hand, is responsible, among other things, for the control of the votes after they are passed by Parliament.

Prior to the setting up of the Office of the Comptroller of the Treasury, the accounting work was performed by the Accounts Branches of the various departments. It may be added here that the Board employees, (Department of Trade and Commerce), who are charged with the collection of the revenue, are under the jurisdiction of the Chief Treasury Officer, who in turn is responsible to the Board for their work and conduct. The Treasury employees, (Department of Finance), who are charged with the control of expenditures, are also under the jurisdiction of the Chief Treasury Officer, who in turn is responsible to the Comptroller of the Treasury for their work and conduct.

Under Section 27 (1) of the Act, the Comptroller is given control over all issues of public moneys in accordance with directions issued by Treasury Board, but no such issues shall be made in excess of any appropriation authorized by Parliament. No accounting officer may issue a cheque unless he has a direction from a departmental officer who has been authorized in writing to give such direction.

Annual Appropriation Acts are enacted each year to provide for the expenses of those services enumerated in the Schedule appended to the Act, for a period of one fiscal year. This may be further clarified by adding that the printed estimates are composed of two main sections. The first section is made up of votes to be included in the supply bill, together with the statutory appropriations. The second section is designed to furnish Parliament with detailed information as to how the proposed votes are to be spent. In effect, items in the first section become votes of Parliament which must be administered strictly in accordance with their terms and amounts. On the other hand, the details contained in the second section may be varied by the Treasury Board to meet administrative requirements. This principle provides for adequate control by Parliament while allowing reasonable flexibility in the actual expenditure by the executive.

At the beginning of a new fiscal year, and before Parliament has considered all the estimates and passed the Appropriation Act, it is generally necessary to provide funds to carry on the essential services of government by obtaining the consent of the House to the passing of an Interim Supply Act. This Interim provides a proportion generally equal to one-sixth or one-twelfth of each of the items to be voted in the estimates. Of the numerous votes contained in the Appropriation Act, only three concern the Board of Grain Commissioners. These are the Administration Vote, Operation and Maintenance Vote, and Canadian Government Elevators Vote.

The Administration Vote, which is approximately \$117,000.00, has charged against it all expenses dealing with the administration of the Board, including the salaries of the Commissioners, Assistant Commissioners, Secretary, and clerical staff connected therewith.

The Operation and Maintenance Vote, which amounts to approximately \$2,157,000.00, has charged against it, as its name implies, all expenses relating to the operation and maintenance of the Canada Grain Act. In other words, all expenditures in connection with the various branches are charged to this vote, (Inspection, Weighing, Statistics, Research Laboratory, Registration, Accounts, License and Bonding).

The Canadian Government Elevators Vote, approximately \$919,000.00, has charged against it the costs of managing and operating public terminal elevators at Saskatoon, Moose Jaw, Lethbridge, Edmonton, Calgary and Prince Rupert.

Each vote is subdivided into what is known as Primary Allotments, which, once they are approved by Treasury Board, cannot be amended except with Treasury Board approval. These Primary Allotments are set up in accordance with Section 26 (2) of the Consolidated Revenue and Audit Act, which provides that each deputy head charged with the administration of a grant is required to submit to the Comptroller of the Treasury for the approval of Treasury Board a classification of expenditures.

Usually the departments, when establishing their classifications, do not vary them from those appearing in the printed estimates. However, Treasury Board is not under any legal obligation to approve of the classification on that basis. It may alter the classification in any way which, in its opinion, would provide for greater administrative control.

Once Treasury Board approves the classification, each Primary in itself in effect becomes a separate appropriation subject to the restrictions as regards over-expenditure as the main vote. It must, however, be remembered that whereas Treasury Board may authorize transfers between primaries within a vote, it or any other body cannot increase a vote once it becomes a part of an Appropriation Act. Any unexpended balance remaining in any of the Primaries at the end of the fiscal period lapses, and therefore cannot be used the following year.

In order to give the Board of Grain Commissioners as much detail as possible with regard to expenditures, we further break the allotments down into sub-allotments, and also by branches and points. The following illustration gives a clearer picture of this breakdown:

<u>Vote</u>	<u>Primary Allotment</u>	<u>Sub-Allotment</u>	<u>Branch</u>	<u>Point</u>
				Winnipeg
				Fort William
			Inspection	Lethbridge
			Weighing	
		Postage	Statistics	
		Telephone		
		Telegraph		
	Commun. Services			
	Equipment			
	Sundries			
	Salaries			
	Professional Services			
	Rents			
	Supplies & Materials			
	Printing and Stationery			
	and Office Supplies			
	Freight & Express			
Operation & Maintenance	Travel Expenses			

After the funds have been released to the Department and the classification of expenditures approved by Treasury Board, the Board is still required, in accordance with Section 29 of the Consolidated Revenue and Audit Act, to obtain a certificate from the Comptroller of the Treasury certifying that there is an unencumbered balance available in the Appropriation.

Section 26 (1) of the Consolidated Revenue Fund Act directs that the outstanding commitments of the previous fiscal year are to be carried forward and 'charged' against the Appropriation along with the current commitments. These two sections thus place on the Comptroller of the Treasury the responsibility for operating the records for each appropriation in such a way as to be always in a position to state the balance remaining in the vote which is available for further commitments. Disbursements as made against the commitments are recorded in such a manner as to show the balance available to discharge existing obligations. The following examples are presented here to give a clearer picture of commitment control.

<u>Vote</u>	<u>Commitments</u>	<u>Free Balance</u>
5000	1947-48 (1000)	2000
	1948-49 (2000)	
<u>Commitments</u>	<u>Expenditures</u>	<u>Unliquidated Commitments</u>
1947-48 (1000)		
1948-49 (2000)	1600	1400

The document used for recording commitments is known as a Financial Encumbrance, which is presented, over an authorized departmental signature, to the Treasury Branch for certification that funds are available. These Financial Encumbrances fall into two categories; namely, Blanket Encumbrances and Specific Encumbrances.

Blanket Encumbrances are used to cover recurring services such as salaries, communication service, etc. In other words, funds are set aside at the beginning of the year to take care of the estimated cost of these services, and the encumbrances are reviewed from time to time to determine whether enough money has been 'earmarked' for the particular service.

Specific Encumbrances are used to record individual purchases, which, in the case of the Board, are submitted by means of a purchase order.

When the Board wishes a payment to be made, it must submit an application for payment accompanied by the necessary invoice. This application for payment must, in accordance with Section 27 (3) of the C.R. and A. Act, be in such form and certified in such a manner as the Comptroller may require.

Upon receipt of an application for payment, Treasury is required to audit the document to ascertain the following points: 1. Arithmetical accuracy of the accounts; 2. Proper performance certificate; 3. Correct encumbrance; 4. Check to see that departmental rules are adhered to; 5. See that proper authorities for expenditures of an unusual nature are on file, such as Treasury Board Minutes, Orders in Council, Ministerial

Authority, etc.

I should like to enlarge on these points somewhat to give a clearer picture of the audit procedure.

The first point is self-explanatory in that we check the calculations involved to ensure accuracy of payment.

The certificate of performance is required by Section 30 of the Consolidated Revenue and Audit Act which reads: "No payment authorized by Parliament shall be made in respect of work performed or material supplied whether under contract or not, in connection with any part of any public service of Canada, unless, in addition to any other voucher or certificate which is required in that behalf, the deputy minister or other officer charged with the administration of the particular service, certifies that such work has been performed, or such material supplied, as the case may be, and that the price charged is according to contract, or if not covered by contract, is fair and just."

Treasury is supplied by the deputy head of the department they are servicing with the names of officers who are empowered to sign this certificate.

Financial Encumbrances are checked to ensure that the expenditure is charged to the correct encumbrance. In the case of Specific Encumbrances there is very little to check, as this was done at the time the purchase order was presented. However, a payment which concerns a Blanket Encumbrance must be thoroughly checked to see that the proper vote and allotment are charged, and also to see that adequate authority exists for the payment because Treasury is often unaware of the particulars of the charges until the accounts are presented for payment.

Departmental rules vary with each department, and it will suffice to say that these rules have as their purpose the more efficient control over expenditures.

Adequate Parliamentary authority must exist for all expenditures. In addition to the authority vested in spending departments by acts of Parliament, there are also to be observed the many rules and regulations prescribed by the Governor in Council and by Treasury Board.

There are certain Statutory Acts, such as that which specifies that all public printing and stationery shall be made by the King's Printer, the Public Works Act which directs that the Department of Public Works shall be responsible for expenditures in respect of the public buildings and their maintenance, which are common to all departments.

In addition to statutes of the above nature, there are executive directions which must be observed in the making of disbursements. These are usually in the form of Treasury Board minutes and cover such items as entertainment of official visitors, compensation for losses of personal possessions of Government employees, damage to personal owned automobiles, installation of telephones, removal expenses, etc.

Should the Comptroller of the Treasury refuse to make a payment because he feels that the proper authority is not available, then the Department may, in accordance with Section 35 of the Consolidated Revenue and Audit Act, have a report submitted to Treasury Board, who may sustain the Comptroller's objection, or order payment to be made.

There are at least five different circumstances in which cases may be brought to the notice of the Treasury Board: 1. When the Comptroller refuses to act, on the ground that the money is not justly due; 2. When, in the opinion of the Comptroller, authority granted by order in council would be exceeded; 3. When the Comptroller holds that there is no statutory authority for the payment; 4. When a deputy head challenges the accuracy of the Comptroller's accounts; 5. When the Auditor General objects to the payment.

Until Treasury Board gives a decision, a Treasury Officer may not make a payment, but if the Treasury Board overrules either the Comptroller or the Auditor General, the decision must be implemented.

It is important to bear in mind that Treasury does not originate expenditures, as that is a departmental discretion. It is the Minister of a department who is answerable in Parliament for expenditures made by his department. Treasury is, therefore, not primarily concerned with the wisdom of a payment, but with its legality.

As stated in previous paragraphs, Treasury is responsible for the accuracy of the accounting records, the legality of expenditures, and for the cheque issues. It may be seen, therefore, that the spending department is not responsible for the over-expenditure of a vote or the accuracy of a cheque issue. It must, however, assume responsibility for payments where incorrect certificates of performance are given. A department may certify that all goods shown on an invoice have been received, whereas some may be missing. Similarly, a department might report an employee as having perfect attendance for pay purposes, but the employee may have been absent from duty for several days, and not having any unused leave credits, would be ineligible for pay for those days. The over-issue in this case is definitely a departmental responsibility.

In order that the Comptroller of the Treasury and the Auditor General may

perform their duties properly, Section 21 of the Consolidated Revenue and Audit Act gives them authority to have free access to the books, accounts, files, documents, or other records of any department or branch of the Public Service and receive such information as they regard as necessary.

There are other matters to be attended to by the staff of the Accounts Branch and Treasury besides the collection of revenue and the control of expenditures. However, I shall mention only those that affect the Board, these being staff pay certificates, service records and the release of the cheques.

It was mentioned in an earlier talk that the Executive Office submitted the staff pay certificates to the Treasury Officer for certification as to funds being available and for transmittal to Central Pay Office for their necessary action. Before forwarding them to Central Pay Office, we carefully check to ascertain that all the necessary documents are attached, such as income tax deduction forms, (either T.D. 1 or T.D. 1A), Unemployment Insurance books for temporaries earning less than \$3120, copies of promotion certificates, etc. The staff pay certificates are prepared on what we call a negative basis; that is, only changes in pay are recorded thereon.

A salary service record is maintained for each employee of the Board in order to have the necessary information available for calculating pensions, allowances, gratuities, etc. Besides this record, a salary ledger sheet is maintained on a monthly basis for each employee. Each of the ledger sheets contains such information as overtime earned, interim and net cheques, current superannuation deductions, tax deductions, Retirement Fund deductions, gross salary, extra duty pay, Canada Savings Bond deductions, arrears of superannuation, Unemployment Insurance and Civil Service Insurance.

As stated previously, the cheque issue is the responsibility of Treasury; therefore, the cheques issued by Central Pay Office are forwarded to this office for distribution. Upon receipt of the cheques twice monthly, it is our duty to see that they are in the hands of each branch head in time to be released on pay day. However, a certain amount of responsibility is placed on each branch head in that he should see that the cheques are not released before pay day, and that any cheque is immediately returned to Treasury for adjustment or cancellation should an employee be separated prior to the date shown on the cheque.

Delivered March 17, 1949,
Winnipeg, Man.,
by Mr. W.S. Rowland,
Chief Treasury Officer.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

LECTURE NO. 10

Weighing of Grain and Services Rendered, by Grain Weighing Branch

In speaking on this subject, it is necessary to refer to the services rendered this Branch in the Eastern Division; that is, that portion of Canada lying east of the meridian passing through the eastern boundary of the City of Port Arthur, separately from those services rendered in the Western Division, which I now refer to.

The Act states in Sections 91 and 123 that all western grain received into licensed terminal elevators shall be weighed immediately before or during its receipt, and also when it is discharged from any terminal elevator. Therefore, all grain received into and shipped out of all licensed public terminal, semi-public terminal and private terminal elevators is weighed by a member of this Branch. The majority of the terminals referred to above are situated in Port Arthur and Fort William, Pacific Coast Ports and Churchill, through which ports practically all our grain sold for export moves. There is also a considerable number of interior terminals and mill elevators situated in the Prairie Province which handle a considerable amount of the crop which is worked into export and domestic channels.

Elevator construction in recent years has become pretty well standardized and weighing and handling equipment has been much improved, and with dust control systems being installed in terminal elevators, conditions therein have been much more pleasant to work in than the conditions which existed in the old terminal elevators which were of timber construction and were built before the Act of 1912 came into effect. Few of these elevators are still in operation.

Shortly after the first Board of Grain Commissioners was appointed, it was decided that in view of the specialized nature of the inspection of scales in terminal elevators, and the number of complaints received, the inspection of these scales should be carried out by an employee of the Board, especially so if the Board had to stand behind their own weight certificates which were issued by their weighmen, and in 1913, Mr. White who had specialized knowledge of terminal elevator scales, was appointed Chief Weighmaster with headquarters at Fort William, to act under executive direction, to organize, direct and supervise the weighing of grain on receipt at, while in store in, or on delivery from terminal elevators, in accordance with the provisions of the Canada Grain Act and regulations thereunder pertaining to the weighing of grain; to inspect scales and elevator equipment, and to advise the Board of Grain Commissioners on all matters relating to the weighing of grain. An Assistant Chief Weighmaster was also appointed to assist the Chief Grain Weighmaster in the above duties. Grain Weighmasters are appointed and stationed at Port Arthur, Fort William and Vancouver to supervise the work of Grain Weighmen, Assistant Grain Weighmen and Grain Trackmen in the weighing of grain in the district to which they are appointed, and handle any correspondence which may arise in connection with their office. Weighing services are also given at the following points: Keewatin, Port Churchill, Moos Jaw, Saskatoon, Medicine Hat, Calgary, Lethbridge and Edmonton, and Supervising Grain Weighmen at these points supervise the work of other members of the staff. Supervising Grain Weighmen are also placed at terminal elevators at the Lakehead and Vancouver that require two or more Grain Weighmen, Assistant Grain Weighmen and Grain Trackmen to supervise the work of these employees. Grain Weighmen and Assistant Grain Weighmen and Grain Trackmen are appointed, and the duties of these employees will be covered when going into weighing grain on receipt and shipment from terminal elevators.

Receiving Grain into Terminal Elevators

When cars are placed on terminal elevator tracks for unloading, they are examined by employees of this Branch, (Grain Trackmen), for condition, and if found leaking or not properly protected by seals, condition reports are issued and forwarded to the consignee. Seal records are also taken by this employee. The depth of grain is measured in each car and reported on the shunt slip that is sent upstairs to the Board's Weighman on the scale floor, so that he knows what approximate weight to expect from each car unloaded. The idea of taking load lines is in case some mishap occurs at unloading and the contents of two cars get mixed. On this plan I would like to direct your attention to the flow of grain from the time it leaves the car until it passes through the unloading hopper, up the receiving leg, the scale garner, and then to the scale hopper to be weighed.

Terminal elevators have their own shipping and receiving weighman, and also scale assistants who do the actual physical work of operating scales under the supervision of the Board's Weighmen. The Board's Weighman issues weight certificates for the gross weight received from each car and delivers it to the elevator company to be forwarded to the consignee with grade certificate and warehouse receipt. This weight is the basis for determining the amount of dockage, issuing of warehouse receipts, and on which the railway companies collect the freight charges.

There are two methods of unloading cars; one by shovels operated mechanically by cables, and the other by car dumpers. Two or three cars per hour are unloaded by shovels, and as many as seven cars per hour by car dumper. In fact, one elevator unloaded 280 cars in 10 hours and 360 cars in 13 hours, which is quite an accomplishment. You will readily understand that in unloading and weighing that number of cars, Grain Trackmen and the receiving Grain Weighman are fully occupied. The Grain Trackman watches the unloading hoppers, making reports covering leaking cars, recording the seal numbers that the cars are protected with, and taking load lines. The Weighman on the scale floor sees that the contents of each car is weighed correctly, making reports and issuing Board of Grain Commissioners weight certificates covering each car. A fee of \$1.00 per car is charged for weighing cars received into terminal elevators, and a charge of \$1.00 per 1,000 bushels when shipping grain to vessels.

Elevators built in recent years have installed 75-ton scales so that the contents of the new cars built by the railway companies can be weighed in one draft. However, there are still a lot of terminal elevators that have only 60-ton scales where two drafts have to be taken in weighing large numbers of cars. Hopper scales, as you are aware, are generally used in terminal elevators. However, there are some large automatic and track scales used.

Shipping and weighing grain from terminal elevators at the Lakehead differs somewhat from shipping grain from terminal elevators situated at Pacific Coast Ports and Churchill. At Lakehead elevators, orders are placed by the Lake Shippers' Clearance Association to terminal elevators to ship a certain parcel of grain, (I think you will hear more on this organization from another lecture). They also place orders with the Weighing Branch Office for certificates to be issued for the amount weighed and in the denominations they require them, which simplifies matters considerably. At the Pacific Coast Ports, orders to ship grain from terminal elevators come from the grain export company which owns the grain, or agents acting on their behalf. If there are several shippers on one vessel, it is not as handy as dealing with one organization like the Lake Shippers' Clearance Association, but I presume it suits the business at these particular ports. The actual weighing of grain to vessels is practically the same at all ports; the management of the terminal issues orders to our Weighman to ship a stated amount of a certain grade, and as soon as the vessel is alongside, fitted and passed to load grain, all shipping scales are cleared, scales balanced, shipping bins sounded and scale mayos spouts locked on shipping bins, by an Assistant Grain Weighman. As soon as drafts are received in scales being used, grain is dropped to the shipping bins and a record of each draft made by our Weighman on his weigh sheets. Scale tickets are punched for each draft on the type-registering device on the scale. These tickets run in series, carrying a letter of the alphabet, and are numbered from 1 to 1000. When shipment is completed, weigh sheets and tickets covering the shipment are forwarded to the office, where they are rechecked before certificates are issued. Scale tickets placed at terminal elevators have to be accounted for by the Board's Grain Weighman. An arrangement exists between this office and the terminal elevator operators that we have these shipping tickets printed for each individual elevator for their account, and the tickets are stored in this office and given out to the Board's Weighman when required.

The Board's Weighman supervises the weighing of all shipments with the help of his assistant. The Assistant Grain Weighman assists the Weighman in the weighing and delivering of shipments to shipping bins for vessels. At times these employees are kept exceptionally busy; for example, a shipment made from a Port Arthur elevator on the S.S. "LEMOYNE" of 550,000 bushels was weighed to this vessel in 4 hours, 15 minutes, and in another case, three vessels were loaded at one elevator at the Lakehead in 10 hours, making over one million bushels. This is quite a contrast to shipments made in 1885 when there was only one elevator at the Lakehead, capacity of which was 250,000 bushels, and railway freight cars with a capacity of 150,000 pounds. Outturns of all cars loaded at Port William and Port Arthur are received from Eastern elevators and are checked and passed on to the Statistics Branch. Shipments ex Pacific Coast Ports and Churchill are known by the Trade as official weight seaboard cargoes. The Board of Grain Commissioners weight certificates are issued for the deep-sea vessels.

On shipments moving east ex Lakehead ports, the Board of Grain Commissioners final weight certificate is issued on the amount shipped to the Lakehead vessel. As you are aware, these vessels are unloaded at Lower Lake Ports or Lower St. Lawrence Ports into elevators before being loaded into the deep-sea vessels. These cargoes are covered by outturn insurance by shippers to take care of any loss which may occur in handling after leaving the Lakehead until it is delivered to the ocean vessel. In the past, there has been some demand for official Board of Grain Commissioners seaboard weights, but no change has taken place to date.

In weighing grain to railway cars from terminal elevators, it is generally possible to hold the amount ordered for each car in the scale, and then when the signal is given, to drop the required amount direct from the scale to the car, the Weighman seeing that the scale is balanced before and after each loading, and the Grain Trackman

sees that grain doors are properly installed and that there are no spills in the car shed when the car is being loaded. Rules and regulations and instructions are issued to Grain Weighmen, Assistant Grain Weighmen and Grain Trackmen in book form covering their work in detail.

Section 138, subsection (1) of the Act states: "In each crop year the Board shall weigh over the grain contained in every terminal elevator, and the period of time elapsing between consecutive weigh-overs shall not be less than nine and not more than twenty-two months."

Subsection (4) of this section states: "The provisions of subsections two and three of this section shall also apply to wheat of the four grades first specified in Schedule One to this Act and to the grades of number one Canada Western Garnet and number two Canada Western Garnet specified in the said schedule which is in or has been received into any semi-public or private terminal elevator."

Therefore, you will see that it is necessary to weigh all grain in store in public and semi-public terminals and the top four grades specified in Schedule I of the Act and grades of 1 C.W. Garnet and 2 C.W. Garnet in all private elevators. Arrangements are made to do part of this work at the close of navigation in some of the elevators at Port Arthur and Fort William when stocks are low and the balance of the terminals in the Western Division during the months of June and July.

Section 138a., subsection (1), states: "In each crop year the Board shall weigh over the grain contained in every Eastern elevator and the period of time elapsing between consecutive weigh-overs shall not be less than nine and not more than twenty-two months." Most of this work is done during the months of January, February and March at Georgian Bay, Lower Lake and St. Lawrence Ports, during the closed season of navigation, and elevators at Atlantic Ports during June and July.

Specially trained employees comprise these audit crews who weigh over these elevators, because when these crews move into an elevator they take complete charge, seal off the power, and nothing is allowed to move until they have sealed all bins, taken off the bin record on specially prepared sheets, sounded all bins, scales, garners and driers, etc., so that they may have a complete record of all grain that is in the elevator.

Advice of the last receipt and shipment is sent to the Registration Branch and Statistics Branch to enable them to make their cut-offs and prepare lists of outstanding warehouse receipts. When this is completed and all bin records and sounding sheets are checked, the officer in charge of the audit crew makes out the first transfer sheet, which shows the bin to be run and the bin it is to be run to after being weighed. This is sent to the Board's Weighman upstairs, and also to a member of the Grain Inspection Branch, who samples the transfer or transfers as soon as they are commenced. No seal on a bin is broken or grain run from scales unless it is supervised by an officer of this Branch. When all bins are run in the elevator with grain in them weighed and sampled, the Grain Inspector, who travels with the audit crew, gives the officer in charge of the crew any changes in grade that are to be made. After all weighing has been completed, all bins are sounded again and checked with the transfer made, weigh-over records are forwarded to the Head Office of the Weighing Branch. When these audit sheets are received in the Head Office, weights and grades are rechecked and statements of the correct quantities of the various grades in store weighed over, are prepared by this Branch and forwarded to the Board to permit of the adjustments of the outstanding warehouse receipts in public and semi-public terminal elevators, and the establishment of overages in terminal and Eastern elevators in accordance with the provisions of Sections 138 and 138a. of the Act.

Other services given by this Branch are weighing grain for treatment and promotion, (this service is necessary when the original grade and warehouse receipt is being changed). Employees of this Branch are also stationed in railway yards at Fort William and examine cars for condition as they arrive, and the consignee is advised of any that are defective. This Branch also has a number of Weighmen stationed at Eastern elevators at the following ports: Midland, Port McNicoll, Owen Sound, Goderich, Toronto and Sarnia. These Weighmen give official weights on car and truck lots shipped out of these elevators for domestic consumption. An office is maintained by this Branch at Montreal with a Weighman in charge who gives weighing services in the Montreal area when required, checks unloading of lake vessels and loading of deep-sea vessels, investigates complaints, and forwards reports of the outturns of cargoes unloaded in the Eastern Division to this office.

It is somewhat difficult to discuss this matter without infringing considerably on the lecture to be given by the Manager of the Canadian Government Elevators on terminal elevators, and in closing, may I say that I feel more or less at a disadvantage by not having been fortunate enough to have heard previous speakers in this series of lectures. However, I hope that I have not duplicated too much what you have already heard. If there are any matters that I have not made quite clear, I will be glad to answer any questions.

Lecture delivered by Mr. W.H. Comba
at Winnipeg, Man., on March 22, 1949.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

STAFF TRAINING

LECTURE NO. 11

Operation of Terminal Elevators

Terminal elevators licensed under the provisions of The Canada Grain Act are designated as Public Terminals, Semi-Public Terminals or Private Terminals according to the nature of the functions they perform.

The Canada Grain Act stipulates that all grain received into a public terminal elevator must be binned with grain of the same grade and not otherwise.

No mixing of grades is permitted except in special bins covered by leases approved by the Board of Grain Commissioners.

Operators of semi-public terminal elevators may bin grain as they see fit, except wheat of the first four grades specified in Schedule One of the Canada Grain Act, One Hard, One, Two and Three Northern and One C.W. and Two C.W. Garnet.

This is the only difference between these two classes of terminals. Both must unload grain without discrimination in the order in which it is received, provided that they have space available to store or handle it, equipment to handle it, and that it is in fit condition for warehousing.

A Private Elevator is one which is either used by the manager exclusively for the storage or handling of grain belonging to him alone, or when the manager is a co-operative association of grain growers, or is a company controlled by one or more such associations, is used by such association exclusively for the storage or handling of grain either belonging to it or produced by or received from some one or more of its members.

Construction

There is a fairly well defined standard type of construction of terminal elevators, usually of reinforced concrete, comprising the following units:

- Receiving Car Shed
- Shipping Car Shed (sometimes these are combined)
- Workhouse
- Storage Annex

These four units are all closely connected with each other, and most terminal elevators have a grain drying plant in a separate building connected only with the workhouse by a spout to feed the grain to the drier and a conveyor to return the dried grain.

The receiving car shed contains the car unloading equipment, either Clark automatic shovels or car dumpers. Below the car shed are the receiving hoppers into which the grain is dropped from the cars.

The shipping car shed contains the spouts through which the grain is loaded into cars. These spouts have bifurcated ends or horns to throw the grain towards the ends of the cars to avoid trimming.

The workhouse contains all the equipment for elevating, weighing, cleaning and transferring the grain, and a number of small bins used chiefly for storing grain until such time as it can be cleaned and transferred to the storage annex.

The storage annex, as the name implies, consists of bins for the storage of grain. These are mostly circular in design, but the spaces between the circular bins are also used for storage and are called interstice bins. The bins are approximately 90 feet deep; the circular bins about 26 feet diameter with a nominal capacity of 30,000 to 35,000 bushels of wheat. The interspace bins hold 7,000 to 8,000 bushels of wheat each.

Grain is delivered to the storage annex by conveyor belts from the workhouse. These belts run the full length of the annex and are equipped with trippers which travel on tracks and can be moved by the belts and placed over the bin into which the grain is to be delivered. Grain is removed from the storage annex by conveyor belts running in tunnels in the basement below the bins, which carry the grain to the shipping legs in the workhouse.

Several of the terminal elevators at Fort William and Port Arthur are equipped with marine legs for unloading grain from boats.

Operation

The operation of the elevator will be considered under two headings: 1. The physical handling of the grain; 2. The records and documents issued.

Physical Handling

Cars of grain are placed on the elevator tracks by the railway and moved into the receiving track shed by the elevator car haul, normally in "shunts" according to the number of receiving pits or hoppers on each track, say 3, 4 or 5. Each series of hoppers across the tracks serve one receiving leg.

When the contents of the car have been unloaded, or, alternatively, when the signal is received from the weighman on the scale floor that the garner is clear, valves under the hopper are opened, permitting the grain to run onto the conveyor belt which carries it to the receiving leg. Although one conveyor belt serves several hoppers, a simple but effective interlocking device makes it impossible for the valves under more than one hopper to be opened at the same time. This prevents the mixing of grain from two or more cars.

Located at or near the end of the receiving belt there is an automatic sampler, consisting of a number of small buckets mounted on chains, one in the centre and one towards each side of the belt. These buckets pass through the stream of grain and pick up a small quantity which is dropped into a receptacle, thus accumulating a fairly representative sample from the entire carload. This sample is used by the Government Inspector to grade the grain if it has not previously been graded or to review the previous grading.

The leg elevates the grain to the top floor of the workhouse from where it moves by gravity through a fixed spout directly to the garner over the scale. From the garner it drops into the scale hopper. No diversion is permitted between the receiving leg and the scale, to ensure that all grain from the car reaches the scale.

When all grain has passed from the garner into the scale hopper the garner valve is closed and a signal sent to the track shed to elevate the next carload, which is thus entering the garner whilst the previous carload is being weighed and dropped to a cleaner bin in the workhouse or to a conveyor belt to carry it to the storage annex.

The weighing is done by the elevator weighman and supervised by the Government weighman. The counterpoise stem and the scale beam are equipped with type registering devices into which a scale ticket bearing the car number is inserted and the weight is impressed into the ticket by the metal type. The two weighmen enter the weight independently in their records, and the Government weighman issues the official weight certificate.

If the grain is to be cleaned it is dropped into a cleaner bin located over the cleaning machines, most of which are on the ground floor of the elevator, though some machines for special cleaning are placed on upper floors of the workhouse and fed from garners rather than from cleaner bins. After cleaning, the cleaned grain is again elevated to the top floor of the workhouse and flows by gravity to a conveyor belt which carries it to the proper bin in the storage annex.

Physical Handling

The screenings cleaned from the grain are elevated to a garner from which they are spouted to a machine called a screenings separator which separates, in one operation, any commercial grain which may have run off with the screenings, the broken wheat and buckwheat, the mixed feed oats and the small weed seeds, each of these by-products being transferred to appropriate bins. Wheat cannot always be cleaned exactly to the percentage of dockage set by the inspector, but is often overcleaned due to small kernels of wheat passing through the screens with the screenings, and this wheat must be reclaimed by the screenings separator. As this reclaimed wheat is accumulated, it is graded by the inspector and binned with wheat of the same grade.

Records and Documents Covering Grain Received

When cars of grain are placed on the elevator tracks the trackman or elevator clerk records the car numbers on a track list in the order in which they are placed on the track and will be spotted in the unloading shed. From this list a shunt slip is made out for each group of cars that will be spotted over the receiving hoppers on each track, a copy of which is sent to the weighman on the scale floor who then knows which cars will be elevated on each leg and in what order.

From his copy of the shunt slip the elevator clerk enters on a weigh sheet the car number, car initial and number, adding the kind of grain, grade, dockage and scale weight when this information is received from the inspector and weighman respectively. He then enters the tariff allowance that is to be deducted, the gross weight, calculates the dockage according to the percentage assessed by the inspector, deducting this from the gross weight to give the net weight of grain. A copy of this weigh sheet, (sometimes signed by the inspector and Government weighman), is forwarded to the Inspection Office. From it the official inspection sheet is prepared, copies of which are sent to the Registration and Statistical branches.

The original copy of the weigh sheet is sent to the elevator office. Here are added the station from which the car was shipped and the party for whose account it is received, this information being obtained from advice sheets supplied by the railway company.

The next record to be made is an outturn for each car, showing all the information contained in the weight sheet and, in addition, the freight rate from the point of shipment, the amount of freight and any other railway charges, such as bulkheads, diversion, etc., the inspection and weighing fees, cleaning charges, if any, and the total of all these items.

Records and Documents Covering Grain Received

In the meantime a list of cars unloaded, with the official weight, has been given to the railway company, and they issue an expense bill for each car showing the point of origin, party to whose advice the shipment is received, kind of grain and weight, freight rate, amount of freight and other railway charges. These expense bills are checked with the outturns made in the elevator office.

A warehouse receipt, in the form prescribed by The Canada Grain Act, is issued for each lot of grain contained in a car, showing the date of unload, pro number, car initial and number, kind of grain, grade and quantity, and the name of the party for whose account the shipment is received.

The warehouse receipts are listed on a registration sheet showing the date unloaded, kind and grade of grain, net weight and warehouse receipt number. This sheet, along with the warehouse receipts, is sent to the Registration Branch where both are checked with the official record received from the Inspection Branch, and if found in agreement, are stamped with the registration stamp and signed by the Registrar or Deputy Registrar and returned to the elevator office.

A warehouse receipt registered by the Board of Grain Commissioners is a valuable document, having similar significance to an accepted cheque. It is negotiable by process of endorsement and is accepted by banks as collateral security for cash advances.

A copy of the outturn showing the charges, with the official grade and weight certificates attached, is forwarded to the party to whose advice the shipment is received. When this party delivers to the elevator office the original railway bill of lading covering the car, properly endorsed, and makes payment of the charges shown on the outturn, the registered warehouse receipt is delivered to them.

Some reference might be made here to the manner in which railway freight charges are dealt with. The Canada Grain Act, Section 126, reads in part as follows: "Upon the surrender of the bill of lading covering any grain received into any licensed terminal elevator accompanied by evidence of the payment of all lawful charges against such grain up to the time of its being so received the operator of such elevator shall issue, in exchange for such bill of lading, a terminal warehouse receipt....."

The most satisfactory and most convenient evidence the elevator operator can have that these charges have been paid is to pay them himself. Settlement is usually made weekly to the railway company, on the 7th, 14th, 21st and last days of each month. The elevator operator, as previously stated, is reimbursed by collecting the freight charges from the owner of the grain, or his agent, along with the original bill of lading at the time of delivering the warehouse receipt.

There is maintained in the elevator office a car index book in which the number of each car unloaded is recorded, with the date. While this is a very simple record, it is a very important one, for, given a car number, reference to this book shows in a moment the date it was unloaded and by referring to the weigh sheet for that date all essential information regarding the car can be readily obtained.

The only other important record of operations maintained in the elevator office is a daily stock sheet, showing, by kind and grade of grain, the quantities in store at the beginning of the day, the amount of each grade received and shipped and the amount remaining in store at the close of the day. From this record a weekly stock sheet, showing similar figures for the week, is prepared for the Statistical Branch.

The physical handling of the grain has now been completed to the point where it has been unloaded, graded, weighed, cleaned and placed in storage awaiting shipment. Records covering all these operations have been completed and documents giving title of ownership of the grain have been delivered to the party entitled to them.

Outward Movement of Grain

Parties holding warehouse receipts for grain in store and desiring delivery of the grain surrender the warehouse receipts, properly endorsed, with shipping instructions.

Physical Handling

The physical handling of the grain at the time of shipment is a much simpler process than when it is being received into the elevator. Usually several bins holding

the grade of grain to be shipped are opened simultaneously in order to obtain a fairly representative quality in the shipment.

The valves in the bottom of the bins in the storage annex basement are opened, permitting the grain to run on to the conveyor belt which carries it to the shipping leg. This leg elevates the grain to the top floor of the workhouse from where it is spouted by gravity to a garner over the shipping scale and thence into the scale hopper. After it has been weighed in the same manner as grain being received into the elevator, the weight being certified by the Government weighman, it is dropped into a shipping bin if the shipment is to be made by boat or to a direct car loading spout if the shipment is to be by rail.

To ensure that all grain weighed reaches the boat or car for which it is intended the spout from the scale is padlocked onto the shipping bin or the car loading spout, as the case may be, the key to the padlock being held by the Government weighman. The spouts from the shipping bins to the boat are handled by the grain trimmers, who are an independent group separate entirely from the elevator and Government staffs.

After a shipment to a boat is completed, an employee of the Weighing Branch examines the shipping bins to see that no grain is left in them.

As the grain is running from the shipping spout into the hold of the boat samples are taken from the stream by a Government sampler. On this sample the Inspector grades the grain and issues the official certificate. In the case of rail shipments the samples are obtained by probing the cars when loading is completed.

Records of Grain Shipped

The records pertaining to the outward movement of grain are also much simpler than those required to record the inward movement. A shipping sheet is made out showing the date, kind, grade and weight of grain, car number and destination or name of boat. The warehouse receipts surrendered against the shipment are listed on a manifest, which shows also the storage and elevation charges and inspection and weighing fees. The original manifest is presented to the shipper and when payment is made the original bill of lading and official weight and grade certificates are delivered to him.

The warehouse receipts covering the shipment are also listed on a cancellation sheet showing the date, receipt numbers, kind, grade and quantity of grain, which is submitted to the Registration Branch when the warehouse receipts are surrendered for registration for cancellation. This sheet is checked with the official record of the shipment received from the Inspection Branch, and if found in agreement the warehouse receipts are stamped with the cancellation stamp and returned to the elevator office.

General

Reference has been made to the charges assessed for the handling, storing and treating of grain. These charges are set out in tariffs approved by the Board of Grain Commissioners. These are maximum tariffs and cannot be varied without approval of the Board. Any elevator applying for, and being granted, permission to charge lower rates than those specified in the maximum tariffs must charge such lower rates on all grain received into the elevator during the crop year for which such tariffs are filed.

Once in each crop year, within the periods specified, in Section 138 of The Canada Grain Act, an official audit is made by officers of the Board of all grain in storage. The amount of physical stocks is compared with the amount of outstanding warehouse receipts as certified by the Registration Branch, and thus the amounts of any overages and/or shortages are disclosed. Subject to the provisions of Section 138, the adjustment of overages may be briefly stated as follows: if it appears that the handling of grain in a public terminal elevator has resulted in the transfer of any grain from a lower to a higher grade, the excess in any grade shall be the property of His Majesty. The same applies to semi-public terminal elevators insofar as the first four grades of wheat specified in Schedule One of the Act and One C.W. and Two C.W. Garnet are concerned. Warehouse receipts to cover shortages must be bought in by the elevator if they do not already own them and be surrendered for cancellation.

The elevator tariffs previously mentioned contain a clause to the effect that out-of-condition grain may always be refused, but if received and stored it will be at the owner's risk, and, further, that damp grain and tough and damp flaxseed will be dried without notice as soon after unloading as facilities will permit.

The drying of grain is carried out under the supervision of officers of the Inspection Branch, who record the moisture content of the grain before and after drying, the temperature at which the grain is dried, and the length of time it remains in the drier. The purpose of these "controls" is to minimize the risk of the grain being damaged during the drying process.

No statement dealing with the operation of terminal elevators would be complete without some reference to an organization which has no part in the physical handling of grain but through whose hands the documents covering practically every shipment of grain from the Head of the Lakes must pass. That is the Lake Shippers' Clearance Association more familiarly known as the "Lake Shippers".

This Association, as its name implies, is a clearing house for terminal elevator warehouse receipts, and it functions in much the same manner as a bank clearing house.

A simple illustration will explain briefly how the clearing house operates.

There are 24 waterfront elevators and it is possible, though perhaps improbable, that an exporter holding, say, 100,000 bushels of One Northern Wheat in store at the Lakehead may hold warehouse receipts for comparatively small quantities in each of these elevators. When he desires to sell the wheat or to move it into a forward position from the Lakehead, instead of surrendering each individual warehouse receipt to the elevator which issued it, he surrenders them all to the L.S.C.A., and they arrange for the loading of the grain, not from the 24 elevators, but perhaps from one elevator and the adjustment of documents between the several elevators is made by the L.S.C.A.

In this way the loading of cargoes from the Lakehead elevators is greatly facilitated and costly delays to vessels reduced to a minimum.

Though originally organized to handle only boat shipments, the Association has for some years handled also the majority of shipments made by rail from the Lakehead.

Lecture delivered by Mr. R. Hetherington,
General Manager, Canadian Government Elevators,
at Winnipeg, Manitoba, March 24, 1949.

BOARD OF GRAIN COMMISSIONERS FOR CANADA

LECTURE NO. 12

Delivered Tuesday, March 28/49

PERSONNEL

by J. Rayner, Secretary, Board
of Grain Commissioners, at
Winnipeg.

The purpose of this lecture is to give a broad general outline of the staff organization of the Board and the position of the individual employee on the staff of the Board, together with some of the provisions of the various statutes and regulations pertaining to his employment.

In the largest sense, the Federal Civil Service comprises all servants of the Crown other than holders of political or judicial offices; that is, Ministers of the Crown and Judges who are employed in a civil capacity, (excluding the Army, Navy and Air Force), and whose remuneration is paid wholly and directly from monies voted by Parliament.

In a narrower sense, the term "Civil Servant" applies to those employees of the Crown whose appointment and conditions of service are governed by the provisions of the Civil Service Act.

The employees of the Board fall within the second category in that they are all appointed under the provisions of the Civil Service Act.

Section 8 of the Canada Grain Act provides for the appointment under the Board of different officials, inspectors, weighmen, clerks, etc., as many as may be necessary for carrying out the duties of the Board, and also provides that the salaries of these employees be paid out of monies appropriated by Parliament for the purpose.

The Grain Act also provides that the salaries payable to inspectors, weighmasters and their assistants be fixed by the Governor in Council on the recommendation of the Board. However, in practice, while the Board recommends salary ranges for these classes, such recommendations have to be approved by the Civil Service Commission, so, in all intents and purposes, the salary ranges for all classes are established in the same manner; that is, by recommendation of the Civil Service Commission to Treasury Board.

The total staff of the Board as at February 28, 1949, was 792, made up as follows: Permanent, 519; Temporary, 266, and Casual, 7. Of the 519 permanent employees 177 were permanent-seasonal. The largest staff during the current crop year; that is, from August 1, 1948, was in October, the total at the end of that month being 835.

By branches, the staff is distributed as follows: Inspection, 478; Weighing, 215; Laboratory, 31; Statistics, 26; Executive, 14; Registration, 12; License & Bonding, 6; Accounts, 6, and Grain Appeal Tribunals, 4.

By points the staff is as follows: Fort William, 338; Winnipeg, 239; Vancouver, 72; Calgary, 38; Edmonton, 32; Montreal, 21; Saskatoon, 17; Moose Jaw, 12; Chatham, 7; Medicine Hat, 6; Toronto and Lethbridge, 3 each, and Keewatin, 4. None of these figures includes the staffs of the Canadian Government Elevators.

With such a large staff and such a variety of services to be performed there are, of course, employees of many different classifications.

Administrative officers, which include the heads and assistant heads of the different branches, total 13. On the different clerical staffs there are 154 employees: Chemists and their assistants in the Laboratory total 26; inspectors and samplers, 400; weighmen and trackmen, 196; and Chairmen of Appeal Tribunals, 3, giving a total of 792.

The largest group is that of grain inspectors and samplers, totalling 400. In these classes these are divided as follows: Grain Inspectors Gr. 6, 1; Gr. 5, 1; Gr. 4, 6; Gr. 3, 13; Gr. 2, 71; Gr. 1, 24; Grain Inspection Assistants, 49; Technician, 1; Grain Sampler Foremen, Gr. 4, 1; Gr. 3, 3; Gr. 2, 16; Gr. 1, 8; Grain Samplers, 202; Seed Analysts, 4.

The Weighing staff consists of Grain Weighmasters, 4; Grain Weighmen, 93; Assistant Grain Weighmen, 31, and Trackmen, 68.

The clerical staffs comprise a large number of different classes: Head Clerk, 4; Principal Clerks, 7; Clerks Gr. 4, 22; Gr. 3, 23; Gr. 2, 43; Gr. 1, 10; Office Boys, and Departmental Accountant, 1; in addition to Stenographer and Typist classes as follows: Secretaries to Executive, 2; Stenographers Gr. 3, 5; Gr. 2, 15; Gr. 1, 4; Typists Gr. 2, 8; Gr. 1, 8.

Under present regulations there is only one way to obtain a continuing permanent position in the Civil Service; that is, by qualifying for permanent appointment at an open competitive competition.

In the clerical classes the entrance grades are Clerks, Grades 1 and 2, or Stenographer or Typist, Grades 1 and 2.

For the Sampler Foreman and Sampler classes the entrance grade is Grain Sampler; for Grain Inspector classes, Grain Inspection Assistant, and for the Weighman classes, Grain Trackman. From these grades advancement can be obtained by promotion competition restricted to employees on the staff.

All employees must serve one year in a temporary capacity before they can obtain a permanent appointment. Employees are given permanent status strictly in accordance with their standing on the eligible list for permanent appointment. All employees, however, cannot obtain permanent status after one year's service, as Treasury Board regulations restrict the percentage of permanents on the Board's staff to 70% for the Inspection and Weighing Branches, and 80% for all other branches. The Board actually has more permanent employees than most Government departments.

Under present regulations, except for superannuation benefits and Civil Service Insurance, temporary employees occupying regular positions are at no disadvantage as compared with permanent employees. They receive the same statutory increases and leave privileges and can now enter promotion competitions for assignment to higher grades. A permanent appointment in the Civil Service does not guarantee lifetime employment. If it is decided that a position is not required, the services of a permanent employee can be dispensed with the same as the services of a temporary employee, except, of course, the permanent employee receives the benefits to which he is entitled under the Superannuation Act, whereas the temporary employee only receives the return of his contributions to the Retirement Fund.

The general policy followed by the Board re promotion competitions is as follows:

Clerical classes up to Grade 4 are restricted to lower grades at the point where the vacancy occurs. Competitions for principal clerks, head clerks and administrative officers are open to employees at all points. Grain sampler foreman vacancies are filled by promotion of grain samplers at the same point. Competitions for promotion to Grain Inspector Gr. 1 are usually restricted to employees at the point where the vacancy arises, but for higher grades the competitions are open to qualified employees at all points. In the Weighing Branch competitions for grain weighman and assistant grain weighman are usually restricted to qualified employees at the point at which the vacancy occurs. Grain weighmaster and higher positions are open to weighmen at all points.

In submitting applications for promotion competitions, it is essential that applicants complete the application form as fully and in as good style as possible. If an applicant shows that he cannot follow the instructions given for completing an application form, then a rating board is justified in taking this into account in their assessment of the applicant.

All applications for promotion are forwarded by the Civil Service Commission through the Department of Trade and Commerce to the Board for completion of the necessary rating forms. For this purpose a rating board is convened, consisting of not less than three senior officials. First consideration is given to the efficiency of the applicant in his present position. Efficiency ratings are now completed on each employee once in each year. It stands to reason, of course, that an employee, to warrant promotion, should have good efficiency rating in his present position. An employee who just gets by in his present position can hardly expect to be seriously considered for a higher position. While promotion is on a merit basis, seniority in the Service also has a bearing on the final ratings. Each applicant is given a basic mark of 60 in the seniority factor; to this is added one mark for each year of service, so an applicant with fifteen years' service obtains a mark of 75, and an applicant with twenty years' service, 80.

The most important factor to be considered is "fitness for the new position". To arrive at the rating in this factor each applicant is rated on a number of sub-factors such as: knowledge in relation to new position, supervisory ability, technical knowledge, capacity for development, administrative qualifications, personal qualities.

When the ratings on the three factors, "Fitness for Position", "Efficiency" and "Seniority" have been established, the results are weighted. Fitness has a weight of 5, Efficiency, 3, and seniority, 2. Thus, if an applicant obtains 75 for fitness, 80 for efficiency, and 60 for seniority, the weighted marks for fitness are $5 \times 75 = 375$; for efficiency, $3 \times 80 = 240$; for seniority, $2 \times 60 = 120$, making a total of 735, which, reduced to percentage basis, gives a final rating of 73.5%.

All applicants are advised by the Civil Service Commission of the results of the competition, and any applicants may appeal against the results. An appellant must, of course, submit the grounds on which his appeal is based.

It will have been noted that the "Seniority" factor has the lowest weight of the three factors.

It must be remembered that an employee's standing on an eligible list, established as a result of an open competition, is not taken into account in rating an employee in a competition for promotion to a higher grade.

Employment in the Civil Service, as compared with employment in private business or industry, has both advantages and disadvantages. Every employee, before becoming wedded to a career in the Government service, should seriously consider whether the advantages in his own particular case sufficiently outweigh the disadvantages to warrant making it his life's work. Some of the advantages are: security of tenure, reasonable working hours, freedom from oppressive supervision, generous leave provisions and excellent superannuation privileges. There is also the matter of service to the public, which to many offsets disadvantages in such service. The disadvantages are: somewhat lower salaries, although this does not apply in all cases, slow rate of promotion, no special recognition of outstanding employees, no bonuses for extra work, and lack of opportunity to change from one type of work to another.

Owing to the large amount of routine clerical work which does not warrant a high classification, opportunities for advancement for clerical employees on the Board's staffs are very restricted. In a grand total of 154, there are only 4 head clerks, 7 principal clerks, and 22 clerks Grade 4, so that, roughly, there is only one chance in five of an employee attaining a higher grade than clerk Grade 3.

In the Inspection Branch, while the chances of promotion for grain samplers are not high, once an employee receives an appointment as a grain inspection assistant he will in due course attain the grade of grain inspector Grade 2, if he has the ability. The chances for further advancement from Grade 2 inspector are about one in three.

In the Weighing Branch, all trackmen can attain the classification of grain weighman, but beyond that, chances of promotion are very restricted.

The organization of the clerical section of each branch of the Board provides for a personnel section under a senior clerk. In the smaller branches personnel work will form only a small part of the duties of the employee charged with the responsibility therefor, but in the larger branches, the work necessitates the full-time attention of the senior clerk in charge of personnel and one, or even two assistants.

It is the responsibility of the branch personnel section to complete all documents for new employees, maintain records of attendance and leave, and submit to the Executive Offices staff pay certificates twice monthly; to keep abreast of all regulatory rulings and directives in connection with the Civil Service Act, Civil Service Regulation Superannuation Act, Treasury Board and Unemployment Insurance. In short, not only to ensure that in all respects the requirements of the Branch in regard to staff are properly carried out, but also to ensure that the rights and privileges of the employees themselves are protected. The officer in charge of personnel in each branch should be readily available to all members of the staff for consultation and advice on any personnel problems put forward. Any problems regarding working conditions, equipment and supplies should be referred by employees direct to their immediate supervisors. If the supervisor cannot make any necessary adjustment, it is incumbent upon him to refer the matter to his next senior officer and, if necessary, to the branch head.

Each branch is required to maintain a card record and a personal file for each employee on its staff. On these cards is recorded the name, date of birth, type of appointment, all details of service, appointments, promotions, salary revisions, salary increases, superannuation contributions, Civil Service examinations passed, service in the Armed Forces, marital status and country of birth. The personal files contain all the documents or papers relating to the individual employee so that in case of doubt the employee can always have any detail regarding his services checked from his card or personal file. Similar records are maintained in the personnel section of the Executive Offices.

Every employee should know the salary range for his classification, and also know the quarterly date on which he is entitled to receive an annual statutory salary increase, and the details of the different deductions made from his salary each month. If he cannot understand these deductions, immediate reference should be made to his supervisor, who should endeavour to have the matter clarified at the earliest possible moment. The Representative of the Treasury attached to the Board maintains a ledger sheet for each employee, and branch heads can obtain any required information re salary payments to such employees from the Representative of the Treasury with very little delay.

Staff Order Books are readily available to all employees in all the different offices of the various branches of the Board. These Order Books are kept right up to date and contain all the Civil Service Regulations, rulings of the Civil Service Commission and Treasury Board, leave regulations, Superannuation Act and rulings and regulations thereunder, the Board's instructions, and the latest salary ranges of the various classifications on the Board's staffs.

All this information being so readily available to you, there would be no point in my discussing with you at this time all the various details of these Acts, regulations and rulings. As a matter of fact, to deal with them all in detail would provide material for three or four lectures. It is hoped, however, that the interest stimulated by these lectures will result in members of the Board's staffs taking more than a superficial interest in these matters and lead to serious study. I think it is safe to say that any kind of mental exercise cannot fail to assist the employee to increase his efficiency. The Board, as you all know, has always encouraged social and recreational activities among the staff, and will encourage, just as strongly, educational activities.

